

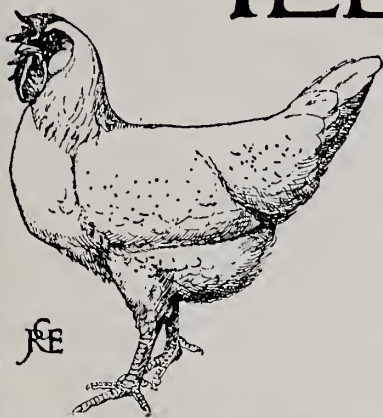
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THE MEXICAN TURKEY (MELEAGRIS MEXICANA).
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THE ILLUSTRATED POULTRY RECORD



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DIARY OF THE MONTH.

EDITORIAL NOTICES.

Telegrams: "CHICKENDOM." Telephone: 1999 P.O. CITY.
ENTERED AT STATIONERS' HALL.

The Editor will be glad to consider any MSS., photographs, or sketches submitted to him, but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury he cannot hold himself responsible for MSS., photographs, or sketches, and publication in the ILLUSTRATED POULTRY RECORD can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all pictures and MSS. All rights of reproduction and translation are reserved.

The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered by experts in the several departments. The desire is to help those who are in difficulty regarding the management of their poultry, and accordingly no charge for answering such queries is made.

The Annual Subscription to the ILLUSTRATED POULTRY RECORD at home and abroad is 8s., including postage, except to Canada, in which case it is 7s. Cheques and P.O.O.'s should be made payable to Brown, Dobson, and Co., Limited.

The ILLUSTRATED POULTRY RECORD is published on the first of every month. Should readers experience any difficulty in securing their copies promptly they are requested to communicate immediately with the Editor. The latest date for receiving advertisements is the 20th of the month preceding date of issue.

The utmost care is exercised to exclude all advertisements of a doubtful character. If any reader has substantial grounds for complaint against an advertiser he is requested to communicate at once with the Editor.

The Bird of the Month.

Although the turkey is not everyone's bird it is undoubtedly the fowl of the month, and during the next few weeks its dominance will be everywhere apparent. Its usurpation of the place of the goose at Christmastide has not, however, proved an unmixed blessing as regards the great body of English producers, and it does not appear that the displacement of the one description of produce has resulted in any adequate increase in the production of the other—by our own breeders. In common with other classes of poultry, the English turkey has keen competitors, although the "Norfolk" label on the slab conveys no hint of the foreigners beneath the counter and their contribution to the Christmas hamper. Unfortunately this profitable bird is the subject of a certain amount of suspicion which it is not easy to remove, in that it has the reputation of a delicateness that is mainly the result of a failure to understand its requirements; and inasmuch as agriculturists are practically the only class of producers who can breed turkeys upon a commercial scale, any progress in a new direction is characteristically slow. Meanwhile the position of the English turkey has been seriously assailed, except as regards birds of exceptional size and weight; and this latter pre-eminence is becoming narrowed by the growing tendency towards the bird of more moderate proportions.

Sequel to the Scotch Poultry Commission.

Although the Report and Recommendations of the Scotch Departmental Committee were only published in May, some of the recommendations are already being carried into effect. We understand that Mr. Alex. M. Prain, whose name, by the way, is known to our readers, has been

appointed to act as Poultry Organiser to the Congested Districts' Board. While good results have followed the annual distribution of pure-bred eggs for hatching, the time has now come when, as recommended by the committee, this method of improving existing breeds should be superseded by the establishment of local breeding and distributing centres. Mr. Prain will this winter establish a number of such local centres, under the management of competent local poultry-keepers, so that they may be in working order by the spring. It is certainly an advance in the right direction, and we believe that the right man has been chosen for the work, since no one has a better knowledge of poultry and local conditions in the Highlands than Mr. Prain.

Brussels Exhibition of 1910.

From what can be learnt, no definite arrangements have been made for live-stock shows in connection with the Brussels International Exhibition which opens next May, and for which enormous preparations are being made in the Belgian capital; but it is probable such shows will be held. These, however, can only be of one or two weeks' duration, and would not be seen by the hundreds of thousands of visitors to the Exhibition at other periods. We understand that the Agricultural Sub-Committee of the Exhibitions Commission has secured space in a prominent part of the British Section, and it is proposed to place there enlarged photographs of all breeds of British stock, including poultry. The most important part of the scheme is that the Board of Agriculture is preparing for distribution a booklet containing, in three or four languages, descriptions of all the breeds represented, and that during the entire time of the Exhibition a skilled linguist will be in attendance to give information to visitors, and, provided with lists of breed societies and leading breeders, to indicate where foreign buyers can obtain the best stock animals and birds. It is hoped that the various specialist clubs and British breeders will cordially co-operate with the committee to ensure a representative display, thus stimulating direct trade with purchasers in other countries, who have hitherto been largely dependent upon foreign dealers for British stock.

Restrictions Upon Poultry-Keeping.

Statements have been made in the daily Press that upon a great estate in the Midlands severe restrictions have been imposed upon tenants as to the keeping of poultry. With the facts of the case we are not sufficiently familiar. In fact, later information would indicate that the restriction was to the effect that fowls must be kept out of sight. As it is somewhat of a show place, and fowls would not be conducive to tidiness, there is

much to be said for a regulation of this kind. But we have come across instances where actual prohibition of poultry-keeping is met with, and without any such justification. In these so-called Model Villages we do not think that occupiers would ever wish to allow their fowls to wander about everywhere, but to prohibit them to keep fowls in their back gardens, when they have the latter of sufficient size, is a gross abuse of power. The number of these instances is, however, very small. Much more serious is the prohibition found in many districts, more especially large farm areas, by which farmers prevent their labourers from keeping any fowls whatever, for that directly restricts production and reduces the national food supply. The suggestion that if the men kept fowls they would steal corn to feed them is, we think, a libel on an honest and industrious section of the community. We hope that a better spirit will prevail, and that everyone may have an opportunity to improve his position by poultry-keeping. With the extension of small holdings and allotments, we may anticipate that these antiquated restrictions will ultimately disappear.

Trade and the Fancy.

The exhibition season that is fast drawing to a close has served to point to the effect upon the Fancy of the state of trade throughout the country. When trade is good and people have plenty to spend, we can depend upon seeing numerous entries at the shows, but during the present season entries have been so scarce at many shows that we can only conclude that bad trade and lack of employment have seriously affected many working-class fanciers. A short time ago we visited a show in the Black Country, the secretary of which attributed the paucity of entries to the state of trade locally. Many working-men fanciers who usually sent three or four entries were only represented by one, and many more were unable to muster an entry. There was no doubt whatever about the cause. Trade had been bad, employment irregular, and the men had no money with which to buy birds or send to shows. But the trouble does not end there. It has a wider significance than many suppose, for the working-men of this and other districts are among the best customers of the large breeders, buying their second- and third-rate show specimens, and sometimes paying up to £3 or £4 for a show bird. The Fancy has no keener adherents than among the working-men of Lancashire and the Black Country, and it is to be hoped, for their sakes and the poultry community in general, that better trade will another year enable them to indulge their hobby more freely.

Autumn Rearing.

The position of affairs towards the end of the chicken-producing year is rather worse even than it was when Mr. Sharpe's note appeared in the November issue, his record of an unfavourable season having been followed by a period of unusually heavy rainfall, accompanied by floods in many places where this production is a prominent feature of farming. In some instances the chicken-rearer's "Ark" proved a vessel of destruction, being, in spite of the significance of its name, but ill-fitted for the salvation of fowls caught in the overflow of rivers that were filled too suddenly. Such total loss has not, fortunately, been common, but rearers whose birds were better placed have had their resources tried to the utmost, and the autumn chickens will scarcely do much in any district towards the compensation of a season in which disappointment has been rather the rule than the exception. Hardy methods of rearing doubtless underlie to a considerable extent the average success of practical producers, but the lesson of this year's experiences would point to the necessity for a more general provision of sheltering-sheds, without which at some periods it has been impossible to keep the birds or their coops and hutches dry.

The Art of Caponing.

That this art is but little practised is certain. The article on the subject that we publish in this issue is, we believe, the best attempt that has yet been made to describe the operation, and the photographs with which the text is illustrated enhance its instructional value, we think, to a very considerable degree. Our readers will appreciate the difficulty of explaining such work more fully after they have read what we have written. We may say that we believe that anyone, after a certain amount of practice, can become proficient in the art; and our object in inserting the article at this time of year, when there are usually a large number of young cockerels running about which can be utilised for the purpose, is to provide would-be caponers with the necessary directions to enable them to practise. Then, when the spring comes round, those who intend to produce capons will be able to perform the operation with confidence, ease, and dexterity.

Alleged Inhumanity in the Goose Trade.

It would appear that that excellent institution the Society for the Prevention of Cruelty to Animals might do worse than investigate the conditions under which live geese are transhipped from the North of Ireland to London and other parts of England. According to reports that have reached us, the birds are often packed so closely in crates that no movement is possible, with the result that they arrive in a state of semi-asphyxia-

tion; while the utmost brutality in handling them is alleged against the men to whose charge they are committed. In the absence of definite evidence of any particular case of ill-treatment, we hesitate to give publicity to anything more than a general statement under this head, but we would earnestly invite the attention of the S.P.C.A. to the matter. A great number of geese are reared by the fisher folk in County Donegal and other parts of the North, are sold to dealers, and are driven in large herds to the seaports for shipment. The trade is an important one, and it behoves all decent-minded persons to see that it is conducted under the most humane conditions possible.

New Breeds.

Despite the efforts of modern fanciers, it must be confessed that the crop of new breeds within the last few years has been singularly disappointing. Original and distinctive types have been conspicuous by their absence, and in their place we have been given a large number of plagiarisms and variations which suggest that the modern fancier is in too much of a hurry to produce something really good. True, there have been attempts to secure some original combinations in colour and marking, and in some cases these are still being prosecuted; but the fact that so many new breeds have been put before the public long before they are ready for distribution not only detracts from their value but damages their prospects of popularity. It is an unfortunate state of affairs when we find new varieties being boomed for the benefit of their producers without regard to the interests of the general public, and in such circumstances it is a pity that no authority possesses the power to classify and value such introductions, as new plants are classified and valued by horticultural societies. It remains for the public to be on their guard against new productions that have not had time to receive a fair and exhaustive trial.

Our Property Bureau.

We beg to call our readers' attention to the Property Bureau we have opened in connection with the ILLUSTRATED POULTRY RECORD. There appears to be a scarcity of suitable places for poultry-keeping, and, further, it is difficult for those who desire to buy or to rent land to locate properties in the desired districts. The object we have in introducing this new section into our pages is to endeavour to bring our readers into touch with estate agents in various parts of the country, so that all available properties on the market may be more fully known.

Owing to extreme pressure on our space we are compelled to exclude "The Bibliography of Poultry" and "Notes from Correspondents" from this issue.

THE QUINCENTENARY OF THE TURKEY.

By EDWARD BROWN, F.L.S.

FOUR hundred years ago the turkey was unknown in Europe, in Asia, and in Africa, except that it may by that time have reached the Spanish Peninsula, upon which point more is said below. The giant of the poultry-yard, whose flesh forms the festive dish in these days over the greater part of the world, had not presented itself to the astonished gaze of our early sixteenth-century forefathers. The great Columbus discovered some of the Islands of the Western Seas in October, 1492, but it does not

of Mexico, and Montezuma's fair dominions became the prey of the invaders. Perhaps it is the prominence given in the records of the Mexican expedition to the fact that the turkey was already domesticated in the country, and kept in large flocks, that has led to the statement that it was unknown prior to the date named, and that it was first imported into Europe either that year or very soon afterwards.

Later observations, however, have shown that a much earlier period in the sixteenth, if not the



AMERICAN BRONZE TURKEYS.

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appear to have been until about ten years later, on his last voyage, that he reached the mainland of North America—if he ever did so. During the immediately succeeding years, when Spanish ambition and, perhaps, cupidity were stirred by the rich treasures discovered, by the allurements of conquest and plunder, many adventurers crossed the ocean, and the shores of both North and South America, save the Gulf of Mexico, were explored. It was not, however, until 1518 that Cortez led his intrepid band to the conquest

last year of the fifteenth, century saw the lordly turkey brought to Spain. The Count de las Navas, librarian to H.M. the King of Spain at the Royal Palace, Madrid, courteously made special researches for my work on "The Races of Domestic Poultry," which are published in Appendix C (page 228) of that book, of which the following may be quoted :

It is usually asserted that the turkey was first found in Mexico, and that, on the whole, it was a stranger to South America. But both assertions are

incorrect. Pedro Nino was its discoverer, on the coast of Cumana, north of Venezuela, on the voyage made by him in 1499. He bought some from the Indians at the rate of four glass beads for each fowl. It is certain that in 1500, on the return of this fortunate expedition to Bayeria, in Galicia, besides the monkeys, parrots, and other curiosities (including a great quantity of pearls) collected by Nino in America, turkeys were seen for the first time on European soil.

If this statement is correct—and the evidence is quite as strong as that found in favour of a later date—the quincentenary of the turkey has passed by nine years. But we now stand between the two dates, and a few years one way or another does not matter for our present purpose. There is a factor, however, in this connection which should weigh with us in favour of the earlier period—namely, the anxiety of the explorers to bring with them anything which had never been seen previously, whether quick or dead, in order to support the wonderful story they had to tell of experiences and adventures, of peoples and things across the great ocean. Gold and jewels would do something in this way, especially if in sufficient quantity; but jealousy might suggest that these had been shipped on this side and brought back, or found in Africa. Rare woods and plants would prove more. Still, Africa might have yielded these. I suppose Sir Walter Raleigh, or whoever first brought over the potato, did not fully recognise its food value, but brought it as a curiosity, an absolutely new root or tuber. It would, however, give credence to his stories. The turkey was absolutely different from any domesticated bird then known, with its tame disposition, its quick growth, its great size, its strange head; and everyone who beheld it must have recognised that new lands had been found capable of producing a creature like that. Under these circumstances we may realise that one of the first objects of the explorers would be to secure specimens for the homeland. Much depends upon whether the turkey was kept in the islands first touched, upon which point there is very little evidence, except that the North American turkey in its wild state does migrate over a considerable area, and could easily pass from the mainland to almost any of the West Indian Islands. It may, therefore, be accepted that the earlier date named is probably correct.

Deeply interesting would it be if we could discover at what period this fowl was first domesticated in America, more especially in Mexico. Some writers have declared that it had been tamed for hundreds of years before the Spanish Conquest, but we have no evidence upon which a judgment can be formed. It is all a matter of hearsay and tradition, as records do not appear to exist showing more than what the invaders were told by natives. When we consider the

remarkable progress in civilisation which had been made by the Mexicans, their knowledge and art, their use of animals and plants, it is not incredible that the foregoing statement is correct, and that the turkey was brought into the service of man centuries before the predatory hordes from Spain came to bring desolation and death in their train. It may be that some day we shall learn more upon this point.

Not knowing the Spanish language, I am dependant upon others for information as to what took place after the turkey reached the Peninsula. Was the giant fowl presented with fit ceremony to Ferdinand and Isabella, or were later monarchs the first to see and to eat him? Did he find his new home in the Royal parks, or were "peseta" exhibitions held in the great cities, to show the wonderful bird which the adventurers had brought? Did he enter surreptitiously and quietly, met at the outset with neglect or calumny, and were there violent and heated discussions among the naturalists and *savants* of that time as to his origin? I have often longed for the ability and opportunity to study the Spanish archives and literature, not alone on account of the turkey, but of the fowls of that fascinating land, though whether with all the fierce struggles of that day, and the absorption of the people in political and religious conflicts and questions, any attention was paid to such mundane matters remains to be seen. I cannot but feel, however, that there must be some records which would well reward the student and enhance our knowledge. Perhaps someone will ere long delve in the quarries of sixteenth-century archives which exist in Spain, and thus help to make our information more exact. From the fact that the historical records of the times are very complete, it is not unreasonable to hope that some attention was paid to questions such as those under consideration.

Whatever the date when the turkey first made its *début* in Spain, not many years elapsed ere it found its way to other lands. One French writer (Remy Saint-Loup), as mentioned in "Races of Domestic Poultry," states that it reached France in 1518, but does not give the authority upon which he relies in proof. If 1500 was the date of its first introduction to Spain, then the date named is by no means improbable. Another writer says 1540. It must be borne in mind that in the period named intercommunication was easiest by sea, and mercantile countries would be likely to obtain rarities earlier than where land was the connecting link. In spite of the great barrier of the Pyrenees, there was at that time, however, considerable traffic between France and Spain, even though there were dynastic and national antagonisms. But as Spain and England both had considerable shipping, the former in constant

and direct communication with Italy, the Netherlands, and Germany, we are justified in assuming that the new American bird would soon find its way to those countries. And, although England and Spain could scarcely be regarded as friendly nations, the time of the fierce struggles for mastery of the seas and for Western dominion had not arisen, and English ships made calls at Spanish ports when returning from the Mediterranean. Ship captains are ever on the look-out for novelties, and we may fairly conclude that the turkey was not long delayed, after it was bred in Spain, in coming to our hospitable shores. The first importation into Britain is variously named as having taken place in 1521 and 1524, but the weight of evidence seems to be in favour of the last-named date. That it spread rapidly is apparent. Our climate probably suited it, especially after the extremes of Spain, and in a few years it had become a favourite dish among the wealthy. Within forty years it was what it has continued ever since—a farmer's fowl and the great dish at Christmastide. And as English adventurers began to sail to America, probably they brought birds direct, which would, apart from the food value of the turkey, explain the rapid rise in its popularity.

Except among Anglo-Saxons the name given, following the Spanish, means Indian fowl, even in Turkey itself, from the fact that when Columbus reached the American islands he thought he had rounded the earth and that these were Asiatic islands, so he called them the West Indies. All this, however, does not explain the name turkey.

Dr. Samuel Johnson in his Dictionary Latinises the name into *Gallina Turcica*, and defines it as "a large domestic fowl brought from Turkey," but the great lexicographer did not know the facts as discovered later.

A writer in *Notes and Queries* (Third Series, Vol. II., September 27, 1862, p. 245) says :

I have been informed that it was first introduced to the notice of Europeans—or, rather, made known to them—by Marco Polo, the Venetian, who has described it somewhere in his book of Travels as the "big fowl," and representing it as an inhabitant of Cathay (Northern China), where it is called Tá Ki ; and hence our English "turkey."

Upon its supposed connection with Eastern Asia we have no definite information, but in Turkey and Arabia it is known as the Hindu Fowl. A later writer in the publication named above (Vol. XI., 1897, No. 279, p. 344) states :



WHITE HOLLAND TURKEYS.

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But what of the name ? may be asked. That this is an American bird, not found naturally in any other part of the world, is unquestionable. If so, how does it come to have received an appellation seemingly to connect it with that part of South-Eastern Europe over which the Crescent shines ? Nomenclature is totally unreliable in respect to history. It may be explained that, when first introduced into Spain, it was thought that the turkey was of the same species as the Guinea Fowl ; hence the scientific term *Meleagris*.

What happened is probably this : when the Spaniards discovered Mexico they brought some of the birds back with them to Spain, where they increased rapidly, and were taken for food upon other voyages because they were larger than fowls, and gave more food without taking up a great deal more room. In this way they found their way to Bombay, and were brought thence to Italy by the Venetians, so that in Italy and France (it was the time of the French Wars in Italy) they became known as the birds from India. For the same reason they obtained a similar name in Turkey and Arabia.

The theory is a possible, if improbable, explanation. It has been suggested that our domestic species came from the American, and that the mid and Eastern European turkey was first imported from India *via* Persia, but in the light of other knowledge that cannot be accepted.

Mr. E. Richardson, writing in H. Myrick's "Turkeys, and How to Grow Them," propounds a very ingenious theory. After telling of its origin and how it was first brought to Europe, he says:

Strange, then, how the bird came to be called turkey. . . . It is obvious we must look to some other language for a solution of the problem. Going to the far-off home of the peacock, we find in the Tamil language of India a word *toka*, peacock, the primitive meaning of which refers to a train or trailing skirt. This word adopted into the Hebrew language becomes *tukki*, and by a slight change by the genius of the English language becomes what we are looking for, *turkey*.

But, it is asked, how came it through the Hebrew? Let it be said, then, that at the time of the expedition of Cortez to Mexico the despised and persecuted Jews were very numerous in Spain, and engaged, as they usually are, by their natural adaptation for gain, in merchandising. Their acuteness led them to deal in foreign birds, and curiosities and rarities, by which they reaped large profits, as these things were only purchased by the rich. Naturally, then, they saw in this new importation an opportunity for gain, which they seized, and as they used their own language as much as possible, it was not long before the Hebrew name for peacock became well known. Doubtless they

designated it as the "American" peacock, for it was well known whence it came. Thus it would be that the word *tukki* would constantly be heard in the market-places.

As against this suggestion, it may be pointed out that there is no evidence that in Spain the name turkey has ever been or is ever applied to this species, as there it is *pavos de Indias*, or Indian fowl. A better explanation of our English designation is given by Hehn in his "Wanderings of Plants and Animals" (page 497):

At the beginning of the sixteenth century Turkish only meant foreign, or come from over the sea; at that time geographical ideas were too indefinite to distinguish exactly the West from the East Indies, and both from the land of the Turks.

It is not difficult to understand how the captain of a ship which, calling on the way back from, perhaps, Turkey itself at one of the Spanish ports, brought to England specimens of the American bird designedly or inadvertently stated that these had come from the Orient, so that the cognomen "turkey" was given. It has been suggested that the turkey was actually in the first instance brought from Constantinople to England, though evidence in support is not forthcoming.

Such, then, is the story of this species of poultry. What the results have been cannot now be told. It is enough to say that the original importations were of the Mexican type, as it was not until later that the North American race found its way across the Atlantic.



COMPETITORS IN THE LAYING CONTEST AT BURNLEY.

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THE CRYSTAL PALACE SHOW.

By W. W. BROOMHEAD.

THE eighth Grand International Show was held at the Crystal Palace on November 16, 17, and 18, and as far as entries are concerned it must have been one of the finest collections of poultry ever got together in this country. In fact, with a total of over 5,900 in the poultry section alone, we question if there has ever been a better show of its kind in any part of the world. No doubt the numerous specialist clubs which held their annual events in connection with the International helped in no small measure to swell the total, but the Palace has ever been recognised by fanciers as the show of the year and the one to attract the best buyers from the Continent.

It is impossible in this brief *résumé* to say anything of the numerous winners in the various classes, but it can be truly said that in very few cases indeed was quality lacking. Dorkings came up well, and there was a nice sprinkling of novices in the two classes set aside for them. There were some very good entries in the Brahma Club Show; but Buff and Partridge Cochins were rather weak. Black Langshans were very representative, but the Whites and Blues (it was the Club Show of the latter variety) were somewhat poor. Croad Langshans came up very well indeed.

The Black, the Buff, and the Variety Orpington Clubs made a very good display, and the total for them was about 620. This was made up of 187 Blacks, 205 Buffs, 150 Whites, 37 Jubilee, and 40 Spangled; add to those numbers 13 Cuckoos and 17 Blues (two of the latest varieties of the breed), and it will be seen that Orpingtons alone were a show. Wyandottes, too, were particularly good, the total for the United Wyandotte Club Show being over 600. There were four excellent classes for Barred Plymouth Rocks, and the other varieties of the breed came out well, although the Buff Plymouth Rock Club Show might have had better support.

There were over 200 Leghorns entered for the Leghorn Club Show, Browns, Blacks, Blues, and Whites being very representative. The Andalusians and Minorcas were well forward, there being a fair sprinkling of Rose-comb Black Minorcas. The Sussex Club Show was well supported, and so was that of the Houdan Club. Malines were very much better than at the Dairy,

and we have never seen finer specimens of the breed than the two birds which won first. La Bresse were particularly interesting, and this is a breed which should "go" over here. Faverolles came up in nice numbers, and there were some charming Hamburgs and Campines on view.

The Ancona Club Show was fairly strong, and so was that for Indian Game. Modern Game were poor, but there were nice entries of Black Sumatras, Aseel, Malays, and Old English Game. The odd breeds, such as Redcaps, Rose-comb Black Leghorns, Brown Sussex, Scotch Greys, Spangled Wyandottes, and Yokohamas, all had separate classification, and may be said to have been representative; but the entry of Bakies or Dumpies with a dozen pens empty was very disappointing.

The Silkie Club Show was well supported, and there has rarely been a better collection of the breed from a quality point of view. There was the usual large array of selling classes, while the Bantam section, numbering not far short of 1,250, was, as can be readily imagined, a show of itself. The Indian Game, the Sebright, the Brahma, the Hamburg, and the Rose-comb Bantam Clubs all held their annual shows at the Palace; hence the grand total of entries. Of Waterfowl, being the annual shows of the Orpington Duck and Waterfowl Clubs, there was not a very great display; but there were some capital turkeys on view.

Of the management of the event much might be said, but it can be summed up in one word—"perfect." When one considers the thousand and one details connected with the holding of a show of such magnitude, the marvel is that something does not go wrong. But so well is it organised that everything runs almost with the regularity of clockwork. The staff of stewards is a large one, and many judges are engaged; and, except in one or two isolated instances, the judging was over and the slips were in the secretaries' hands by lunch-time on the opening day. It was most unfortunate that one club show had appointed only one judge for its section, since he was unable to complete his task on the first day. But the fault did not lie with the International Committee, whose chief aim is to get the judging over in good time.

THE ART OF CAPONING.

BEING AN ATTEMPT TO DESCRIBE HOW THE OPERATION SHOULD BE PERFORMED.

IT is strange, considering the simplicity of the operation, how few poultry-keepers practise the art of caponing young male birds, and still more strange since it is possible under certain conditions to make the work very profitable. It is not so many years ago since the number of experts who followed this branch of table-poultry could be counted on the fingers of one hand; now, fortunately, there are a larger number of poultry-keepers who are able to perform the operation, but still the market demand at Christmas is considerably in advance of the supply, and there is opportunity for many others to work in this direction. Briefly stated, the advantages of caponing are as follow: (1) Capons mature more rapidly, and grow to a larger size than would cockerels; (2) the flesh of an eight- or nine-months old capon is as tender and juicy as that of a spring chicken; (3) capons can be run indiscriminately with males or females during the growing period; and (4) the value per pound of capon flesh is higher than that of ordinary cockerel flesh.

It must be understood that we do not advocate this branch of table-poultry production for all poultry-keepers, for under certain circumstances it would undoubtedly pay better to dispose of the birds when three to four months old at the then market price. The conditions under which capons can be raised successfully are those which are usually found in what is termed farm poultry-keeping—where poultry form only one part of the stock maintained, or where there is ample room for them to have their liberty. The reason for this is that as the birds have to be fed for some five months after they reach a killing age, if all foods have to be purchased the profit is largely eaten up by the food bill; but if the conditions are such that the capons can be turned out on to the stubble after harvest, then on to plough land or on to pasture, they will gather for themselves practically all that is required to keep them growing steadily until it is time to fatten them for market. This branch can also be worked profitably when market gardening is run in conjunction with poultry-keeping, for in this case a large amount of the feeding stuff can be composed of the unsaleable vegetable produce.

We have stated that this is an attempt to describe the operation of caponing. We have put it this way, for we realise how difficult it is,

even with photographs, to teach the art by a written description, but we believe that if our instructions are carefully carried out in detail anyone will be able to perform the work successfully if they (1) do not object to the sight of a little blood; (2) are not made sick by the peculiar smell arising from the organs of the body; and (3) are not nervous or likely to get flurried. The last-mentioned is very important, for if the work is hurried in any way fatal results are likely to accrue, but by this we do not mean the operator is to dawdle. Remember there is a great difference between working rapidly and hurrying. Provided the following instructions have been mastered, not longer than ten minutes should be taken with the first bird, from the

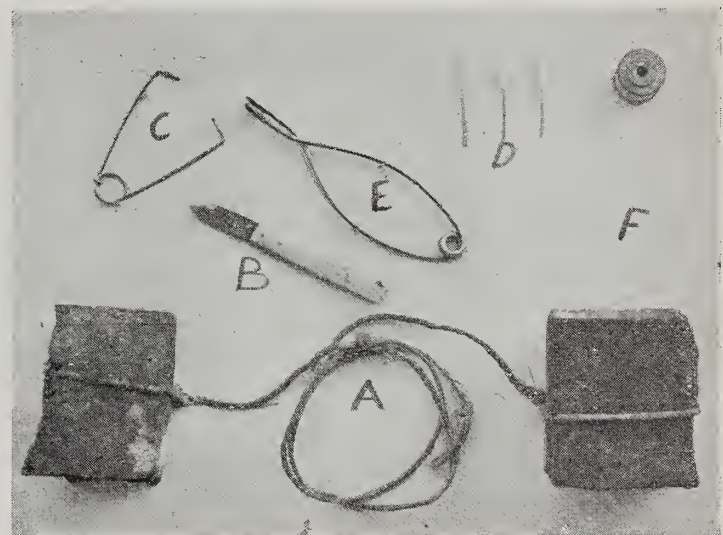


Fig. 1.

[Copyright.]

(A) Half-bricks with cords attached for holding bird in position. (B) Knife. (C) Spreaders for opening wound during the operation. (D) Sponges made of cotton wool twisted round the ends of matches. (E) Forceps for taking hold of the testicles. (F) Surgical needle and silk for stitching wounds.

time the first cut is made to the last stitch. As showing how simple the operation really is, we may state that an expert can handle eighteen to twenty birds in an hour.

As the object of caponing is to make large birds, only those which belong either to the table or the general purpose class should be used. Cockerels from ten to twelve weeks old are best for the purpose. As the abdominal portion of the body has to be opened, it is advisable to starve the birds for twenty-four hours so that the intestines may be practically empty. The

appliances necessary, besides the instruments, &c., shown in Fig. 1, are a table about 2ft. 6in. wide, a bowl of very cold water in which a few grains of permanganate of potash have been dissolved, and a couple of clean dusters. The remainder of the tools required are described below the photograph. The cockerel is taken, and the noosed end of the cord attached to one half brick is passed over the wings and tightened at the shoulders; the other is fastened round the legs above the hocks. The bricks are then dropped over the sides, the left side of the bird resting on the table, as seen in Fig. 2. The area which has to be plucked as in Fig. 3 is doused in cold water, and the feathers are pulled out. The effect of the cold water is to deaden the sensitiveness of the skin, and thus the bird hardly feels any pain. One of the dusters is now taken, soaked in cold water, and folded so that it forms

turn at an angle of about 120deg. go forward and join the sternum. It is only with the two last ribs on either side—those nearest the thigh—we have to deal, and in the case of, say, an Orpington at twelve weeks old, the section attached to the backbone is about 1 $\frac{3}{4}$ in. long. The cut has to be made between the two last ribs from the backbone to the point where they turn to go forwards. The membrane which separates the thoracic from the abdominal section of the body is attached to the sixth rib, and therefore if the cut is made between the fifth and sixth ribs the lungs will be touched, and it will be next to impossible to take out the testicles. Cutting into the thoracic portion of the body, and even cutting the lung, does not often cause death, but as a second cut will be necessary on the same side great care should be taken to find the exact position at first.

Pass the first finger of the left hand, com-

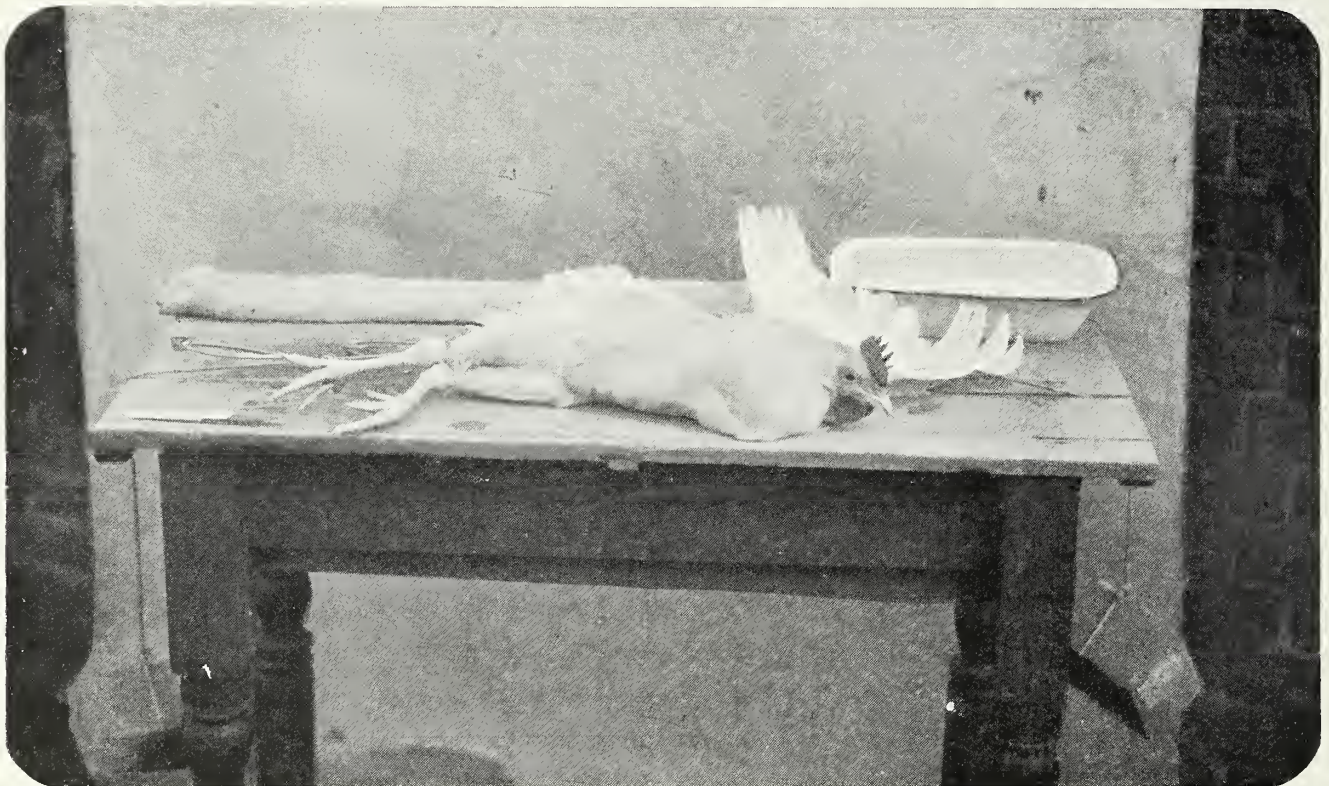


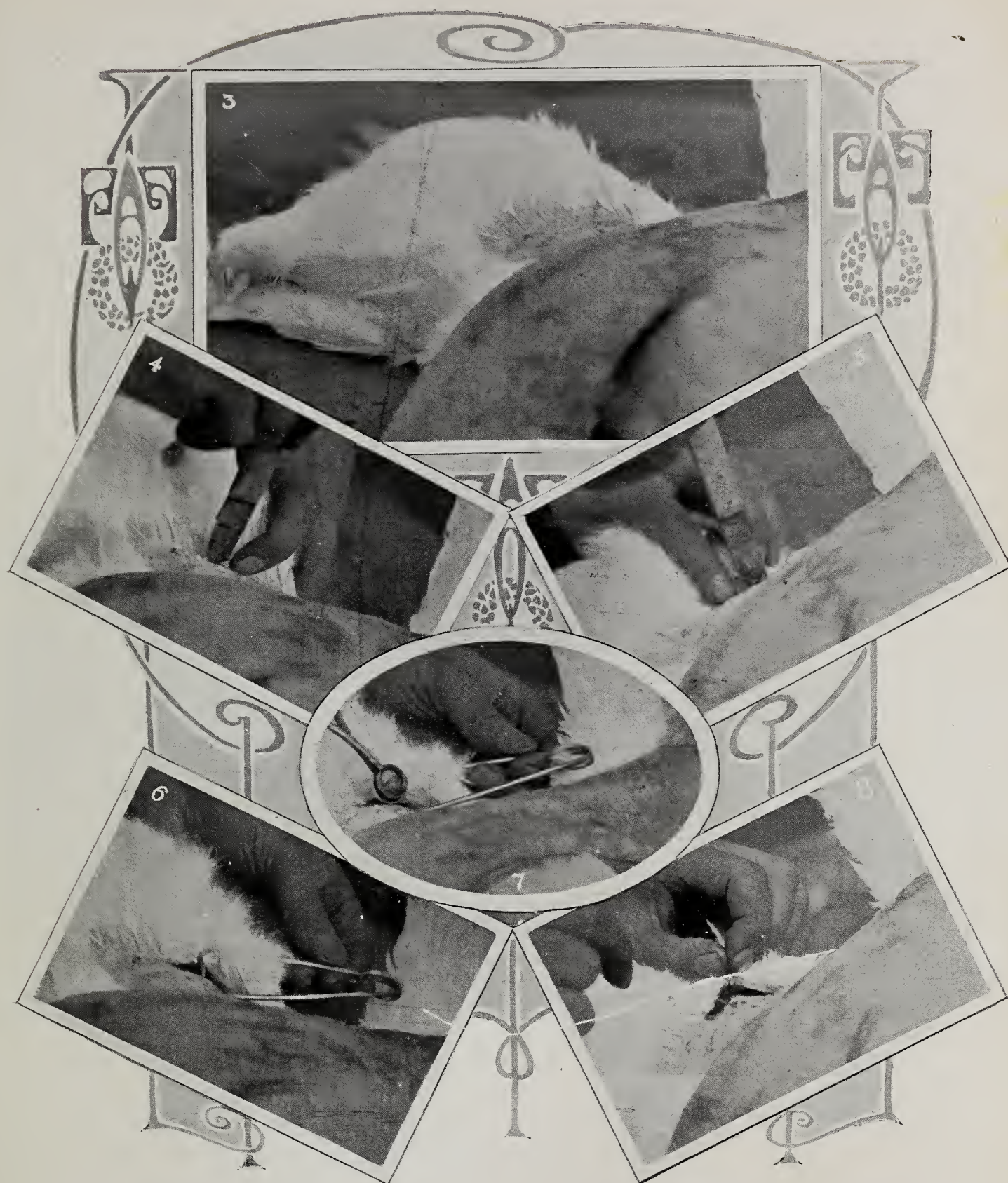
FIG. 2.—SHOWING BIRD IN POSITION WITH WEIGHTS ATTACHED.

[Copyright.]

a strip some two inches wide, and this is placed over the feathers in front of the plucked area, as shown in Fig. 3.

The most difficult part of the operation is to locate the exact position for cutting. Great care must be exercised in finding it. To describe it, we must touch on the question of the anatomy of the fowl. There are seven ribs on either side, springing from the back bone. The first two of these, counting from the front of the bird, are loose ribs—that is, they are only attached to the back. The remaining five spring from the backbone, take a backward direction at first, then

mening at the thigh, towards the front of the bird until the seventh rib is reached, pass over this, pressing the nail between it and the sixth rib just about midway between the backbone and the angle of the ribs. Holding the finger firmly in position, the point of the knife—with the cutting edge towards the breastbone—is inserted to a depth of half an inch and a cut made to the angle of the ribs. With the finger still in position, the knife is taken out, turned round with the cutting edge to the back, re-inserted, and, removing the finger, the incision is continued with the knife vertically until the backbone is reached



[Copyright.]

Fig. 3.—Operation area cleared from feathers.

Fig. 4.—The first cut. The finger must be held in position between the sixth and seventh ribs during this part of the work.

Fig. 5.—The finger still between the ribs, but the knife is here turned and ready for continuing the cut to the backbone. Note the knife must be held in a vertical position.

Fig. 6.—The spreaders holding the wound open so that the internal organs may be seen.

Fig. 7.—By means of the forceps the testicle is severed from the fastenings which connect it with the backbone and withdrawn.

Fig. 8.—As explained in the text, it is advisable for novices to put one stitch into the wound. The needle is passed through the skin on each side of the incision, and these are drawn together and tied.

The reason for holding the finger between the ribs during both cutting operations is that, the skin being loose, it may move and the cut be made in the wrong place. Figs. 4 and 5 show this part of the work.

The spreaders are next inserted, the seventh and sixth ribs being held in the two hooks of that instrument, as in Fig. 6. Surrounding the organs in the abdominal portion of the body is a fine membrane. It may happen, and we generally succeed in doing it, that this membrane has been already severed by the first cutting, if not, the knife must be again used, but with caution, for it lies very close to the intestines. If there is sufficient blood in the body to make the organs indistinct, this should be soaked up by means of the sponges. In all probability, if the bird has been well starved, the right testicle will be in view. It is a small bean-shaped organ, yellow in colour, and is attached to the backbone. If not, by means of the forceps, the intestines should be pushed gently towards the breastbone, and this will bring it into view. Taking the forceps in the right hand, they should be inserted, slightly opened, with the ring blade towards the testicle, and a firm grip taken of that organ. With a half turn the connection is severed, and the forceps with the testicle withdrawn, as shown by Fig. 7.

We have suggested that the cut in the first place should be made as large as the length of the ribs allow, and we believe it best for novices to do this, but it is advisable, after a few birds have been done, to make as small an incision as possible. With a large wound it is wise to put in one stitch to draw the skin together, and for this either a surgical or an ordinary needle, slightly curved, and white silk should be used. Only the skin must be sewn, for if the flesh covering the ribs be taken up, the slightest movement of the fowl will tear it apart. Fig. 8. When sufficient practice enables the operator to work with a small opening, it is better not to stitch the skin at all. A gas is given off from the inside of the body, and if the wound heals too rapidly the bird will become puffed up, and to allow for the escape of the gas the skin will have to be pierced.

To take out the second testicle the operation is repeated in a similar way on the other side of the body. As soon as the operation is over, the bird should be placed in a small coop littered out with clean straw. For a couple of days a small amount of food should be given five times a day. It is unwise to allow the bird to fill its digestive organs until the wound is partially healed. The best food we have found is soaked biscuit-meal, dried off with toppings or ground oats, with about 10 per cent. meat-meal added. After two days the bird can be given its liberty, but it

is better if it is not allowed to perch for a few days longer. The birds recover very rapidly from this operation, and the death-rate is low. A proficient operator will not lose more than 2 per cent., and frequently a whole season will pass without any mortality at all. About five weeks before the Christmas demand commences the fowls should be picked up and fattened.

THE CINDERELLA OF AGRICULTURE.

To the Editor of the ILLUSTRATED POULTRY RECORD.

SIR,—I am obliged to you for forwarding me the ILLUSTRATED POULTRY RECORD for October, 1909. I have read the article appearing therein by "Statistician" entitled "The Cinderella of Agriculture: How the Poultry Industry is Neglected by County Councils," and am surprised to find the injustice that is done to the County Councils of Notts, Derby, Leicester, and Lindsey Division of Lincolnshire. On page 7 appears what is called the Black List (counties which expend no money on poultry instruction). That list includes the four counties which I have mentioned; and on page 8 a map of England is given, in which those counties which are claimed not to have given instruction in poultry-keeping in 1907-8 are coloured black, and amongst those so coloured again appear the same four counties. I must therefore draw your attention to a fact which I should have thought must be known to you—namely, that these four counties (Notts, Derby, Leicester, and Lindsey Division of Lincolnshire) are the contributing counties to this College, and that the College possesses one of the largest instructional Poultry Departments in the kingdom, through which a large number of students from those counties annually pass, and that during the year under review by "Statistician" the following numbers of students were given instruction in poultry-keeping: From Derbyshire, 33; from Leicestershire, 15; from Lindsey, 17; from Notts, 11; and from other counties, 35; total, 111. Furthermore, during that same year 16 extension lectures in poultry-keeping were given in the County of Notts, the average attendance being 42 persons. The latter fact is, I see, recognised in the table appearing on page 9, so that the author stands corrected by his own statement, inasmuch as this table in itself disproves the Black List appearing on page 7.

In view of these facts I fail to see how "Statistician" was justified in black-listing the four counties in question. Having in mind the wide circulation of the ILLUSTRATED POULTRY RECORD, and realising, therefore, the widespread misunderstanding which "Statistician's" article must occasion, I shall be glad to hear from you as to what steps you propose to take to correct the erroneous impression conveyed by the article you have published.—Yours, &c.,

J. F. BLACKSHAW, Principal.
Midland Agriculture and Dairy College,
Kingston, Derby, November 12, 1909.

"STATISTICIAN'S" REPLY.

THE responsibility for the statements made in the article on "The Cinderella of Agriculture" is that of the "Annual Report on the Distribution of Grants for Agricultural Education and Research in the Year 1907-1908," issued by the Board of Agriculture, from which all the figures were obtained. Reference to pages 148 to 151 of that publication will show that the counties named expended no money on education in poultry-keeping; but from Principal Blackshaw's letter and the list of lectures recorded on page 9 of the ILLUSTRATED POULTRY RECORD, extracted from the county returns given in the above report, it is evident that what is done

in this way is included in the grants to colleges and schools, which were as follows:

Derby	...	...	...	£820
Leicester	...	...	...	666
Lindsey Division of Lincoln	...	...	...	590
Notts	...	...	...	775

What proportion of these amounts was expended on poultry is not stated, and it was impossible to do anything for the article in question than accept the official figures as published. If Principal Blackshaw would kindly supply the figures, these should be published so as to do justice to his excellent and valuable institution.

WHO'S WHO IN THE POULTRY WORLD.

MR. W. C. RICHARDSON.

MR. RICHARDSON is one of a few successful fanciers who have begun by taking up poultry as a pleasurable hobby and have ended by making it a profitable business. One of the Richardsons of County



MR. W. C. RICHARDSON.

Antrim, Ireland, Mr. Richardson was educated in Cheltenham, Blackheath, and at Repton School, when he was contemporary with Mr. C. B. Fry. On leaving school he entered the Ulster Bank in Belfast and worked there for six years, at the end of which period a serious breakdown in health caused him to give up his post and retire to the village of Staplefield, near Crawley, in Sussex.

Up to this time Mr. Richardson had neither kept poultry nor taken any interest in them. The enforced idleness at Staplefield, however, brought its reaction after a time in an overwhelming desire for occupation of some sort, and after various other experiments he purchased a pen of poultry just for the sake of amusement. This was only about sixteen years ago, and since then he has developed into one of the most prominent and, we may add, most popular figures in the Fancy. The sensational victory of his Buff Orpington cockerel at the Dairy, Palace, and Birmingham Shows in 1908 was universally applauded.

At Northlands, Horsham, where Mr. Richardson now lives, the speciality is Buff Orpingtons, and his success with this breed is due to a system of line breeding that he has brought to perfection, and that renders him independent of other people's stock for exhibition purposes. It is his boast that not a single bird has been purchased for exhibition or stock for the last nine years. Mr. Richardson, it will be remembered, founded the Buff Orpington Club, and was hon. secretary of it for several years. He was one of the first guarantors for the International Show, and his services as judge are in request everywhere at the present time.

MRS. S. B. MOORE.

MRS. MOORE, who is our special correspondent in China, and whose entertaining notes on Chinese methods of poultry culture have appeared in these columns, has lived in China since 1892. Born in

North Carolina, U.S.A., in 1878, she is the daughter of the Rev. G. W. Greene, D.D., who is engaged in missionary work at Canton, and for some years previous to her marriage she devoted herself to the same pursuit. She married an Englishman in the Hong Kong Civil Service in 1903, and since then has lived in Hong Kong,



MRS. S. B. MOORE.

or in one of the adjacent British possessions on the mainland.

She has been interested in poultry since childhood but for many years after her going to China she was unable to indulge in the hobby. In 1906, however, having previously made a start with chicken-farming in Hong Kong, she took the poultry course in the Columbia Poultry Culture School, Waterville, New York, U.S.A., and has since made steady progress with her small establishment in Kowloon City, which is the district of Hong Kong where she resides with her husband and children.

MR. S. C. SHARPE.

OF all the English counties, Sussex is about the most important in regard to the extent of the poultry industry practised within its borders. Not only is it the habitat of the fattening trade; the number of utility breeders who help to supply this trade, especially of cottage breeders, is also very considerable. In such a district the industry stands in special need of organisation and up-to-date instruction, and much has already been done to supply this need. Among those who have devoted themselves to such work in Sussex is Mr. S. C. Sharpe, who lives at Lewes, and holds the post of Lecturer on Aviculture to the Agricultural and Horticultural College at Uckfield. Mr. Sharpe is also a lecturer under the East Sussex County Council, for which he has given over one thousand lectures. How

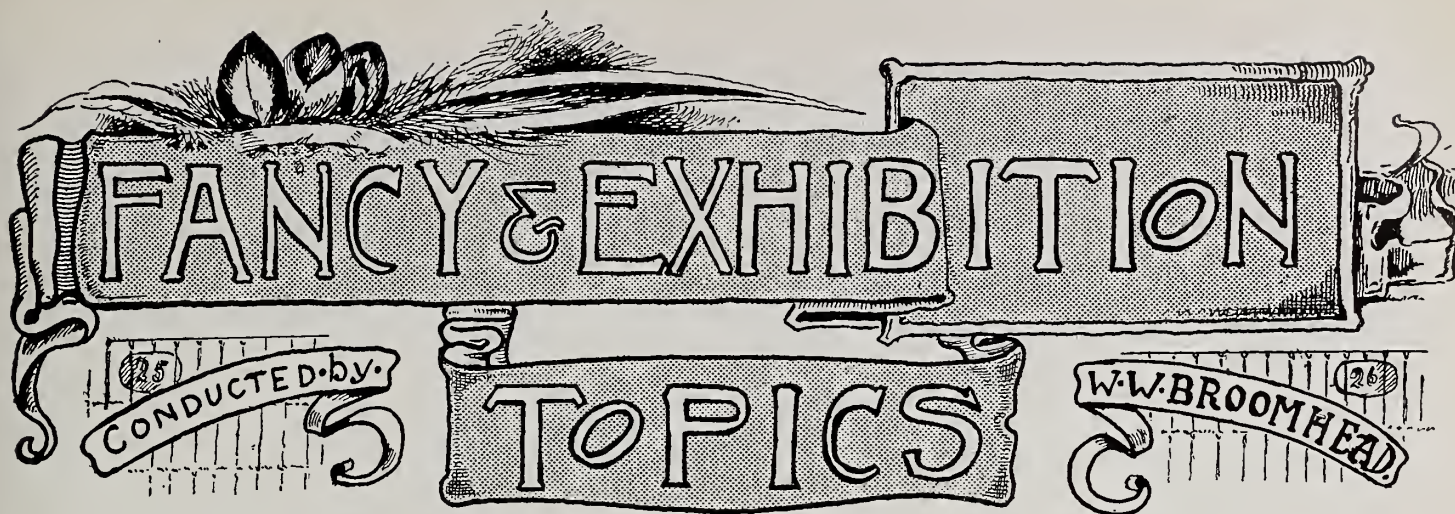
these lectures have been appreciated may be guessed from Mr. Sharpe's record during the session of 1908-9, when he gave sixty lectures in East Sussex before an average attendance of 65.9. At some of the centres there was an attendance of one hundred and fifty and over. The figures point unmistakably both to the great local interest taken in the work and to Mr. Sharpe's ability as a lecturer.

Mr. Sharpe was instrumental in promoting the Sussex Poultry Club in 1903, and is its hon. secretary. The Club is the largest specialist club in the country possessing a membership of over three hundred. He was also largely responsible for the foundation of the Sussex Fatteners' Association (1907) of a hundred members, and for the Hastings and District Farmers' Asso-



MR. S. C. SHARPE.

ciation, of which he is chairman. As hon. secretary of the Poultry Section for the Sussex County Agricultural Society's Show he has assisted at several of their events, and he is also on the committee of the Sussex Branch of the Poultry Club.



The Poultry Club.

There can be no doubt in the minds of several prominent fanciers that things are not just as they should be at headquarters, and that unless something is done to make a radical change in the management the Poultry Club will never hold the high position in the Fancy which such a body should occupy to do the utmost good for all—or, rather, for the vast majority. Even its most ardent supporters—and I trust that I may be numbered among them—cannot deny that so far the Poultry Club has fallen short of expectations, and that to make it a power in the land reforms are needed. It must be admitted that the Redistribution Scheme acted as an excellent fillip and resulted in a large increase of its membership. But now that the boom is over and most counties and sections have their committees there is a fear that the Club will settle down once more to its old routine. It must not be so, and steps must be taken to put new life into the concern. No one wishes to see it deteriorating again into its “jog-trot” style.

In its Youth.

Far be it from me to stir up matters of the past, or to read through old volumes for the history of the Poultry Club. However, it will not be out of place to mention that the first move to found the Club was made early in 1877, and that towards the end of that year the Club was practically formed, “with the object of placing the exhibition of poultry on a more honourable basis than it has of late held.” In its youth there is no doubt that it was a somewhat exclusive Club, since the annual subscription for members was fixed at a guinea. A reduction to ten shillings per annum was made at the general meeting of 1884; but that it was not a powerful body is patent from the fact that in 1892 there were only some forty paying members on its books. However, it must now number not far short of 2,000 members, so it must be acknowledged that it has done some good in the intervening seventeen years.

A Northern Meeting.

It is beyond dispute that a feeling for reform is abroad, and one cannot overlook the meeting of the committees of the Yorkshire, Cheshire, and Lancashire

branches, which was held at Manchester Show. This, perhaps, is only one way in which reform can be accomplished, the meeting being convened for the object of giving the Northern section better representation on the Council. The chairman thought that every confidence might be placed in the existing Council; but it was desirable, in the interest of Northern fanciers, that some scheme be devised whereby better representation of fanciers at a distance from London might be obtained. Their scheme might have been outlined at that meeting, or it might not; but from the somewhat brief report of the proceedings it appears that a Yorkshire member “explained a scheme which he had drawn up to be placed upon the agenda at the adjourned general meeting at the International Show,” and that that scheme, together with a resolution that a delegate should be elected for each fifty members, which was sent up by the Lancashire branch, would form grounds to work on at the meeting in question.

A Northern Club.

It has been suggested in certain quarters that “the easiest way out of the difficulty” is for Northern members to disassociate themselves from the existing Club and to form a Northern Poultry Club. However, such a move would not tend in the slightest to mend matters, but rather to end them. It is not the first time that an attempt has been made to form such a split in the camp; the other was most unsuccessful, and I greatly question if the present move will meet with any measure of success. Candidly, the sooner it is dropped the better. The general body of fanciers do not wish for two clubs of this stamp; moreover, reforms are needed by others than those residing in the North. It has been asserted that the existing Club is practically a Southern clique, and that “the power is in the hands of a few living in one particular district, who cannot be expected to share the views and sympathies of members in other parts of the country.”

North v. South.

Those of us who have been in close touch with the poultry Fancy for many years are aware that at one time

there did exist a feeling that the two sections were entirely distinct; but all of that has been swept away long since. And at the present time it is taking a decidedly narrow-minded view of the matter to say that because a fancier resides in the South he cannot share the views and sympathies of those residing in other parts. I have seen it stated somewhere that there are more full-blooded Scotsmen in London than there are in the whole of Scotland; and although I am not prepared to swear that such is actually the case, I know, since I am myself a Northerner, that the North is fully represented in the Southern counties. And as far as the Poultry Club is concerned all sections of the Fancy get a good hearing; or, to quote from a resolution passed at the Manchester meeting, "... the business of the Poultry Club has been conducted with absolute fairness and justice to all."

Why, Then, Reform?

That being so, why, then, ask for reform? The question is, Is the North, or, for the matter of that, the East and the West, fully represented? Each county and section that has been formed under the Redistribution Scheme has the power to elect a delegate to attend the meetings of the Council, and beyond these delegates the ruling body consists of the president, past presidents, twelve vice-presidents, an hon. treasurer and secretary, and an hon. solicitor. With the exception of the delegates, the officers are elected by the members of the Club resident in any part of the country. Although results tend to show that these officers, because they live within reasonable distance of London, and are therefore the more likely to regularly attend the Council meetings, are generally elected, it does not follow that they must be; and if reform in this direction is needed it lies entirely in the hands of the members to bring it about.

A Suggestion.

It has been said by a well-known authority that the government of the Club must be in the hands of actual representatives of the Fancy, and that although individually the members of the existing Council are beyond reproach and there is nothing personally against any one of them, the principle that puts the power in the hands of a few living in one particular district is at fault. If that is so, then I repeat that the remedy lies in the hands of the members. I quite agree with the same writer when he states that "there is no room nowadays for the exclusive cliques who imagine that the Club should be run for the benefit of amateurs, by amateurs, and that persons who earn their livelihood in the poultry industry, in any shape or form, are necessarily disqualified from holding responsible positions." There is nothing more discouraging than a clique, and the sooner all such are removed from the Fancy the better for its good. What the Poultry Club needs is that its prominent officials shall be in close touch with the Fancy; it does not require those who vegetate in one spot year in and year out.

VILLAGE SHOWS.

By A. T. JOHNSON.

IT seems a great pity that our summer shows of the purely local type should not be in a more prosperous state than they are to-day. They never were strikingly flourishing as institutions, but ten or fifteen years ago they created more enthusiasm, and, I believe, did more good than is the case at the present time. Most of us can remember village shows which have long ago ceased to be, and so great was their collapse in many instances that no one has ever had the courage to suggest the promotion of another in the same district. Bad management, want of knowledge of the proper methods of procedure, petty jealousies between officials, and a too speculative programme—the offspring of an injudicious, often very ignorant, committee—are the rocks upon which these shows are usually wrecked.

There is, of course, the want of money always confronting the executive of a local show; but this, I think, might often be avoided if things were not done, as they often are, in such a hurry, and if the old system of "collecting books" were done away with or revised. I have never met a secretary who was not worried by the apathy of "collectors" who do not collect, and the difficulties of getting the books at the proper time. And even supposing a parish to be fairly delegated in sections to a number of collectors, it almost invariably happens that when, after much delay, the books are eventually got together, there is usually at least a third (to put it at a low computation) of the inhabitants who have never been called upon at all. A much better system, to my mind, is to appoint one collector, and let him work on commission, with the understanding that a certain proportion of his percentage would be deducted for every house unvisited by a given date. The committee would then know exactly how it stood regarding the support of the district, and this, the most important of all the features connected with a village show, would be simplified and placed upon a workable basis. Money, of course, is not everything in a village show, but it is a very essential factor, since expenses are always greater than was anticipated, and entry-fees by no means always cover prize-money. Then there is the possibility of "a rainy day," in its most literal sense, when the "gate" is often practically nil.

The question may be asked, in view of all the difficulties and disappointments which beset the path of the philanthropists (for they are often nothing more nor less) who undertake to run a village show, whether the latter is really worth it. There are men and women to be found in every parish who have decided that question long ago by having nothing more to do with such ventures. And, although these are usually the most capable of all, we can seldom wonder at their decisions, seeing that, in very many instances, their time and money have been expended for next to nothing. Lack of *esprit de corps* and enthusiasm on the part of the rank and file (except on the show day, when "Tom, Dick, and Harry," members of the committee, which they have

never attended, come to grumble and stir up schisms of discontent) and the casting of all the drudgery upon the shoulders of the willing hacks will in time damp the spirits of the best workers and loosen the bonds of unity that may exist between the few. But notwithstanding these set-backs and others, there are many of us who cannot help feeling that the village show (of poultry and horticulture combined) is an institution that deserves the greatest encouragement, for when properly conducted it engenders a healthy spirit of emulation among the competitors, it inspires—let us hope—the losers with a determination to do better next time, and it trains the novice in the way he should go. Just as “the child is father to the man,” so the village show should be the nursery wherein those breeders and exhibitors who will one day fill the empty places of those whose work is done first taste the experiences of life.

The only way, perhaps, to get at the bottom of the failure on the part of the village show not only to pay its way but to carry out the worthy “objects” set forth in the rules of the society which conducts it is to go further into the matter of management. And I do not hesitate to say that many a show is wrecked by the professional exhibitor, or big breeder, who is mean enough to swoop down and secure the prizes which were meant for the encouragement of those most in need of them. It is all very well to say that the cottager or small holder would never know what to aim at if he never saw something that was really good. But if that is so, there is no reason why he should be knocked down with it. Personally, I think that argument a wholly unreasonable one, and I know, as a positive fact, that many rural shows have been obliterated by the presence of the “big” exhibitor—whether poultry-keeper or horticulturist—or because the rural exhibitor, or amateur, was not efficiently protected from his rapacious superior. If a committee wants to provide open classes for the crack exhibitor, it should not do so without the consent of the whole society, or at least two-thirds of it, for it is surely grossly unfair, if not something worse, to take the hard-earned funds (collected for the specified purpose of encouraging local culture) and distribute them to the stranger. I have seen promising little rural shows, which were doing much good, absolutely killed by an overbearing section of the committee, who chose to ignore the very principles which they were elected to observe. The Fancy, as such, has no stauncher supporter than I am, but it can in an indirect manner do much harm in the way I have indicated—not through any fault of its own, but because a few of its representatives sometimes have a way of growing too big for their boots. “Limit” classes have been tried as a means of protection for the small man, or amateur; but in these days, though I regret to say so, there are experienced exhibitors who will enter a bird for a 5s. first prize in a 7s. 6d. or 10s. limit class, and risk its being claimed, even though it may be worth more than limit price and prize put together. But, generally speaking, the fault rests with the committee, who, if it likes, can manage to

foster and encourage the culture of stock, animal and vegetable, among the amateurs of the locality without much fear of any intrusion by the deck-sweeper. More thought and study should be given to this part of the schedule than is usually the case, and while I would not for one moment wish to bar purely fancy breeds—for if we have beautiful flowers, why not beautiful poultry?—I would make more of the utility side than is usually done.

Speaking of flower shows in his delightful “Memories,” Dean Hole very wisely says that “there must be vigilance, as well as vigour and self-denial, in the committee. The trail of the serpent is still among the flowers. The exhibitor is tempted and fails. He wants just one more dish for his collection of fruit, and he begs it or buys it. He has not ‘twenty-four distinct varieties,’ so he puts in another under another name.” This, we all know, is equally true of the poultry section of the show, and while not many modern exhibitors (even rural amateurs) would make as bold a venture for fame as he who is mentioned below did, a committee cannot be too explicit in framing its rules nor too thorough in seeing them carried out. The incident referred to came under the direct notice of the famous rosarian just quoted, and it deals with a farmer who entered his name as a candidate for a prize to be given for the best three ducks, and who, finding that one of his trio was inferior to the others, substituted in its place a fine young goose! The story of how “the spirit of resentment lingered in the breast” of the disqualified exhibitor, as told (and who could tell it better?) by the immortal Dean, and how he got his revenge upon the president and all other officials of the show (instead of upon the judge) is too long to quote; but to any of us who know something of shows and their “seamy side”—as well as their comic aspect—it is intensely realistic and humorous, and yet by no means an overdrawn example of what village show promoters must put up with and be prepared to endure sometimes.

The rural exhibitor who is given to cheating is, of course, not such a finished artist at his work as some exhibitors we know. Very often he sees no sin in “winning anyhow.” Only last Christmas I judged a small show of fat stock, and the best pair of turkeys had their breasts beautifully inflated with air! The point of a penknife at once disclosed the fraud, but no one regretted the discovery more than I did; for the birds were, apart from the faking, undoubtedly the best in the show, and they ultimately, though disqualified, realised a better price than the winning couple. Two-thirds of the chickens had their breastbones cut at this show and others were “doctored” in various ways; but there is not the slightest doubt that in many cases there was no direct intention on the part of these exhibitors to deceive the judge. The fault really lay with the show executive, whose rules were not exhaustive and plain enough for the rural exhibitor, who only sees a show about once a year. But although these things cause friction and discontent, they should be just as severely checked as those little tricks of, say, the village gardener who knowingly mixes several varieties of potatoes or

apples in the same entry, and hopes he will not be found out. The duty of the committee, however, to see that the rules are explicit and concise is paramount, for many a beginner has his hopes blighted and his mind embittered towards shows simply because his unaccustomed mind was incapable of properly understanding the regulations.

Of course the rural exhibitor has a way of thinking "all his geese are swans," and there is generally more grumbling at the judge at these events than in those where far greater matters are at stake. This, perhaps, is a favourable rather than a deplorable feature, for it indicates some keenness among exhibitors; and I have generally found that if the judge can afford the time, there is nothing like a walk round the pens after lunch. It inspires confidence in the exhibitors, and, speaking personally, quite the pleasantest part of the day's work is that hour in the tent, when questions are asked and answered, advice given, and friendly intercourse exchanged. And I think this action on the part of the judge is one that goes very far indeed to ensure the continued success of any village show. Sometimes one has to hurry for the last train for home, but if time can be spared it should be spent, first, in the tent, and then in any of the neighbouring gardens and poultry-runs of the exhibitors who may live close by.

MEN AND MATTERS.

By W. W. BROOMHEAD.

Mr. W. M. Bell's Orpingtons—The Combined Club Show—Fowls Going Astray—To the Novice—Wyandotte Bantams—Some Recent Shows.

MR. W. M. BELL'S ORPINGTONS.

One has to be extremely careful when referring to the champion wins of exhibitors. Many fanciers claim to have won this, that, and the other; but it is not always that the claims can be substantiated. In the case of Mr. W. M. Bell, however, it is a fact that during the past four years Black and White Orpingtons bred by him at St. Leonard's Poultry Farm, Ringwood, Hants, and exhibited in the young bird open classes at the Dairy, the Crystal Palace, the International, Hayward's Heath, and the Combined Orpington Clubs Shows, have put up a record as winners of first prizes and challenge cups. And among the most important wins secured by the St. Leonard's Orpingtons are the Poultry Club's 30-guinea Challenge Trophy for cocks, two years in succession; two gold medals and six silver medals at the Dairy Show in seven years; and the Black Orpington Club's 20-guinea Challenge Trophy, for four years in succession. There was a time when Mr. Bell dabbled in other breeds and varieties, and won with them, too; but, like many another exhibitor, he found it best to confine his attentions to one breed. And that he has been wise in doing so goes without saying. I have visited St. Leonard's Poultry Farm on several occasions

from the time that Mr. Bell set out as a poultry fancier, and it has been a pleasure to watch the growth of this establishment from the days when it was "run" as a purely utility poultry-farm to the present time, when it is one of the most important establishments in the Orpington Fancy. Here, too, the benefit of "starting off right" is fully recognised, and Mr. Bell makes a feature of selling trios of birds for breeding exhibition specimens, and more than one beginner can testify to the quality of the birds sent out.

THE COMBINED CLUB SHOW.

I am now able to give more particulars concerning the Manchester meeting, and I am glad to see that something like a definite pronouncement has at last been made. Up to then everything was in the air, and members of several specialist clubs, who had held aloof, were asking for information. Among the recommendations for the carrying out of the scheme, which were to be placed before a general meeting of specialist clubs at the Palace, were the following: "That only clubs specially interested in a particular variety of poultry shall be eligible to show at the Combined Show, and any club, such as the Plymouth Rock Club, where two or three varieties are included in the one parent club, shall be eligible, provided there are not separate clubs for their varieties." It means practically that the older bodies, such as the Leghorn, Plymouth Rock, and Andalusian Club, the Leghorn Club, the United Wyandotte Club, to name only three, will not be eligible. But how will the executive of the Combined Show deal with, for example, the Plymouth Rock Club? There are also a Plymouth Rock Society and a Buff Plymouth Rock Club. Presumably the one which can guarantee the largest entry will be chosen. Then again, it is stated in the report: "That each specialist club shall prepare, and be responsible for its own . . . prize-money . . ."; also "that the prize-money shall not exceed 25s., 15s., 7s. 6d., and 4s."; and further, "that each club shall fix its own prize-money, but shall have the right to increase the above prize-money out of its own reserve fund." I may be somewhat dense, but I admit that the above appears to be decidedly muddling. Since each club will be responsible for its own prize-money, it is only reasonable to expect that each club will fix its own prize-money; so why say in one rule that the prize-money shall not exceed a certain amount and in the next that it may be increased? Then again, the rules concerning profit and loss are certainly not clear. Maybe a definite and workable scheme was decided on at the Palace Show; I am unable to say so just now as particulars are not to hand at the time of going to press with this issue. It is important, however, that a clear code of rules must be drawn up if the scheme has to be carried through successfully. I understand that the first show will be held in the North, and in 1910.

FOWLS GOING ASTRAY.

From a letter which Messrs. Albert E. Wragg and Son, of Edensor, Bakewell, recently sent to a weekly contem-

porary, it appears that a Black Wyandotte hen which they exhibited at Oxford Show, and which secured the first prize in its class, had not been returned to them from the show at the end of a month, and possibly they have not yet received the bird. They have made exhaustive inquiries, and one member of the firm, at great expense and inconvenience, visited several exhibitors in the neighbourhood of Oxford without meeting with success. As Messrs. Wragg and Son say: "Some one exhibitor must know that he has received another exhibitor's bird, and having received such, he has not communicated the fact to anyone." After such a statement there is only one thing to infer—that the first-prize hen is being wilfully detained. One can hardly credit that such a thing could happen in these days, but it is, after all, not a difficult matter. Too often it happens that, rules to the contrary notwithstanding, exhibitors are permitted to pen and unpen their own birds and to assist in those duties. Of course it is possible in the rush of getting the exhibits away from a show for a steward to put a bird into a wrong hamper purely by mistake. But when such errors have occurred they have invariably been rectified within a few days. To have a fowl astray from a show for over a month is something altogether out of the usual.

TO THE NOVICE.

Mr. Sturges writes in last months' RECORD of the competent judges as being mostly appointed by the specialist clubs. Maybe, but some of the most incompetent and faddy judges I have met have been so nominated. As to the older judges disliking the more modern breeds, it may be so in some cases, but it cannot be expected that a new breed in its youth can hold its own with one that has been bred to standard points for a long period. If new breeds were withheld from the show-pen until there was something definite about them it would be different. But most of the new breeds of recent years have been rushed on to the show-bench while they are practically in the first stage, and little better than mongrels, so it is no wonder that a preference is shown for an old breed when it is a question of special for best in show. However, if the novice follows out the excellent suggestions given by the Rev. T. W. Sturges, he will not only benefit himself, but will render the judge's tasks less difficult than they are at present, when most novices' birds are exhibited.

WYANDOTTE BANTAMS.

The "bantamising" of fowls is unquestionably a fascinating hobby. Writing to me of his experiences with Wyandottes, Mr. Tom R. Grant says that when he commenced making the Blue-laced variety in January, 1907, he little thought that the hobby would get such a hold of him; but so engrossed is he in it that in the midst of the busy breeding season he is planning what varieties he can introduce next year. When one starts on experimental breeding one achievement leads to another. It is just two and a half years since Mr. Grant became a fancier of Bantams, yet in that time he has

originated five distinct varieties of miniature Wyandottes—to wit, Blue, Blue-laced, Buff-laced (or White-laced Buffs), Gold-laced, and White-laced Blacks; and next year, he tells me, he will be breeding Blacks and Whites solely from his own strain of Blue-laced. On the subject of large Wyandottes he claims to have solved the problem of breeding Blues which are Wyandotte-bred from start to finish, and without the infusion of Rose-combed Blue blood or any other admixture whatever; what is more, the cost of setting up a trio was half a guinea at the outside. "As Lister discovered the process of producing plushes and velvets from silk waste," writes Mr. Grant, "so have I discovered the process of breeding Blue Wyandottes from 'cast-offs' of two varieties of Wyandottes. And the surprise is that it is a cross which not one in a thousand would guess!" As to the Bantams, so interested is he in the charming miniatures that he is setting up pens to breed eight distinct varieties, including the five which he originated, as well as Black, Silver-laced, and White, the Cuckoo probably coming from the Blue without special mating. If business affairs do not necessitate his removal to other parts of the country, he hopes to breed every variety of the Wyandotte Bantam in a season or two.

SOME RECENT SHOWS.

There were some good classes of Indian Game at Exeter Show, and White Wyandottes were also fairly strong. Sussex turned up in full force at Eastbourne Show, there being 105 entered, Light hens and pullets numbering 21 and Browns 29. In six classes for Orpingtons the total was 86, and there were 33 White Wyandottes on view. A charming White Orpington pullet exhibited by the Countess of Derby won the special for the best bird in the poultry section, in which the total was 550 entries. The Plymouth Rock Club Show came off at Northampton, and although somewhat early in the year for such an event, and particularly considering the backwardness of the present season's birds, there was a good entry, the Barred and White varieties being well supported. Bristol Show was somewhat of a disappointment, and solely, I think, because it clashed with Manchester. Wyandottes, Orpingtons, and Bantams came up well; and the Poultry Club medals for the best fowls in the show went to Mr. J. F. Entwisle's Pile Modern Game Bantam cock and Mr. R. Watson's Partridge Wyandotte hen. Manchester Show was, as usual, a truly great event, and there were about 2,000 entries in the poultry section. The Leghorn, Plymouth Rock, and Andalusian Club held its annual show in connection with the fixture, and proved a great attraction. Blue and Rose-combed Black Leghorns appear to be taking on, and there were thirty-five of the latter in two classes. Kendal Game Show resulted in a good entry, and all the leading exhibitors were represented. Barnstaple, Devon, was hardly so good as usual, and several classes had to be cancelled; but there was a good display of poultry at Morecambe, no doubt due to the fact that it caters almost solely for the popular breeds—namely, Plymouth Rocks, Orpingtons, Wyandottes, and Leghorns.

SHOULD JUDGES BE LICENSED?

To the Editor of the ILLUSTRATED POULTRY RECORD.

SIR,—I have read Mr. Elkington's article and Mr. Pettipher's letter on the above subject, and, as the humble originator of the idea as it is being now considered, perhaps you will allow me to state my own particular views on the subject—those which, embodied in a letter, were read to the Council of the Poultry Club.

Firstly, in regard to Mr. Elkington's sweeping question: Is the licensing of judges to be arranged on a broad or (as he expresses it) a narrow basis? Of course I am just as much in the dark as he is respecting the views of the Poultry Club Sub-Committee upon that, but my idea partakes of the broad principle, while not altogether embracing it as outlined by Mr. Elkington. It seems to me that a permanent sub-committee composed of disinterested members of the Poultry Club Council, or elected from the body of the Club, could well deal with the licensing of judges and matters arising therefrom. In my opinion such a sub-committee could quite easily decide (1) whether a man is competent to judge, and (2) whether, upon moral grounds, he should be allowed to do so. The first item seems the chief stumbling-block, but this is how I propose to deal with it.

I propose that three kinds of licenses be issued: (a) For an all-round judge; (b) a judge of one special variety; and (c) a judge of more than one variety or several particular breeds. A man, if granted a license, would not get it free; he would have to pay a fee of a guinea for it. Thus a new source of income to the Poultry Club would be provided, and surely a judge should be prepared to pay for the advertisement and advantages accruing to the privileged holders of the Poultry Club's license. I do not deny that in some cases it would be a difficult matter to decide whether a man was capable of acting as an all-round judge. But I suggest forms should be sent to the applicant to be filled in with details of his length of experience of the Fancy, the breeds he has kept, the prizes he has won, and, after he has complied with certain essential requirements, anything he likes to urge in his own favour. The form would be sent back to the secretary, and the discretion of the sub-committee would largely decide whether a license should be granted.

In regard to Class B, my scheme would provide that all club judges should be allowed the Poultry Club license (free) on application—but that license would, of course, only entitle them to judge their own special varieties. Class C would provide for the needs of a breeder of, say, White Wyandottes, Barred Rocks, and Buff Orpingtons, whose becoming modesty would not allow him to apply for an all-round judge's license, or whose application for one had been refused; but doubtless—if a man of morals—he would be licensed to judge those three particular varieties.

Mr. Pettipher's letter in your last issue strikes me as sound, sensible, and altogether to the point. The only

matter raised by it with which I think I need deal is that contained in the third paragraph—"I am afraid there would be a large number of unfavourable protests lodged against judges, who would thereby be put to an immense amount of unnecessary trouble and expense in defending them." Well, of course, a person who wished to mulct a judge in some accusation or objection would, before doing so, have to lodge a very substantial deposit; and if the objection was decided to be frivolous or malicious by the Licensing Sub-Committee this deposit would be forfeited. In such cases the Council would act as a Court of Appeal.

The whole subject is a very large one, and because it is a very large one we are all apt to look at it sadly—fold our hands upon our laps and repeat pessimistically that to license judges in a comprehensive manner is quite out of the question. But for the fact that Mr. Elkington always strikes me as an essentially energetic person, I should say that he has done that. When I first discussed the problem with a few knowledgeable confrères, I was told that the Poultry Club would not give the idea a thought—which seemed to me then a trifle probable—even if it was ever sent by my branch to headquarters. However, it has met a better fate. It has been discussed at a monthly meeting of the Poultry Club's Council—and that, believe me, is a great concession.—Yours, &c.,

WILFRID H. G. EWART.

BEAUTY v. UTILITY.

To the Editor of the ILLUSTRATED POULTRY RECORD.

SIR,—The review of the "Poultry Manual" which appeared in the ILLUSTRATED POULTRY RECORD for September gave me considerable gratification from the measure of appreciation accorded to it by the reviewer, who is one of the best-known writers on utility poultry. That it is not altogether laudatory does not detract from the appreciation. An author expects and desires criticism. But I wish briefly to remove a misconception. The reviewer, after quoting a brief sentence, makes me say that "I attribute to utility poultry-keepers" the serious offence of "scoffing at beauty and insulting their maker"!

Such an imputation upon the great body of utility breeders was the farthest from my thought. I am not aware that I have ever expressed the opinion that there is a conflict between beauty and utility. On the previous page I wrote with regard to the fancy fowls I admire so much: "Handsome is that handsome does." And only in the sentence next before the offending paragraph: "Fancy fowl . . . are not the less useful because they are the more beautiful."

I am not writing to find fault, nor do I crave space for discussion, but simply to state that my aims are not contrary, but only supplementary, to those of the utility breeder.—Yours, &c.,

THOS. W. STURGES.



Eggs or Chickens?

Those who are about to begin poultry-production for the profit there may be in it are frequently considerably exercised in their minds as to whether the balance of possibilities is in favour of eggs or chickens, and without going deeply into the many details of the subject, the suggestion may be hazarded that for the greater number the opportunities chiefly encourage the former production. To produce eggs in sufficient quantity and in such a manner as to show the best average return for the year's work is no mean task, but to add to that labour the further intricacies of rearing and, perhaps, fattening and preparing for market is to introduce innumerable risks and anxieties that are quite unimagined by the light-hearted aspirant. The question is, however, one that requires careful consideration relative to the individual and the locality, and each case must be decided upon its own particular merits. As a matter of fact, there is a reasonable amount of profit obtainable from both, although the circumstances that cause one man to specialise in eggs may not be equally suitable for the remunerative raising of table-fowls—or *vice versa*. The right decision depends, of course, upon such considerations as include the physical conditions of the situation and the personal capabilities of the would-be producer; but apart from such important questions as suitability of soil and management qualifications, the really decisive influences as regards the profitable possibilities are those of supply and demand and the transit facilities as they affect the individual.

Cost of Production.

The ruling aim of business management is to keep down the cost of production, relative, of course, to the requirements of quality in the produce. General references to this important subject are usually concerned, in the first place, with the value of the food consumed; and, secondarily, with the various details of breeding, incubation, rearing—perhaps, also, labour and rent, wear and tear, interest, and so forth. There is,

however, a very important difference between prime cost and total cost, and the failure to appreciate duly the supplementary cost that must be included in the latter is a common cause of disappointment. The advice and estimates that are offered in text-books, and that by other mediums reach the novice, are necessarily almost entirely confined to the prime cost, it being obviously impossible to include such supplementary costs as will in any equal measure be of general application. No one is in a better position than the individual immediately concerned to discover what these are, as between his own locality and possible markets; and it is a simple matter by the addition of such supplementary cost to the prime cost to arrive at an approximately accurate total cost. Upon the complement of all these details must depend the decision relative to the most profitable production in given circumstances. Speaking of the industry inclusively, it may be noted that although economic progress offers facilities for distant marketing, the natural advantages are with those who can produce within a reasonable distance of their source of demand—even though the prime cost may be greater; but until the whole industry is more perfectly organised these advantages must, in many particulars, remain more apparent than real. Under the existing state of affairs the supplementary cost of production is unduly increased by many of the methods of marketing and the frequent depreciation of the produce before it is actually sold.

Eggs v. Flesh.

This paragraph has nothing to do with the profitability of one or the other, but is concerned with the more physiological question that arises from the tendency to use, or attempt to use, one breed for two purposes which are to some extent opposed to one another. It is, of course, the legitimate end of "general purpose" breeds, as such, to supply both eggs and table-chickens; but the tendency referred to endeavours to go beyond the original or implied intention. The question of breeds becomes more involved year by year, and laying com-

petitions have added to the complexity. It is, at any rate, certain that extreme prolificacy and superlative table qualities are opposite characters, and that the one is developed at the expense of the other. It will, for example, cause no surprise, to those who know the capabilities of the variety, to learn that the Light Sussex entered in the Street Competition shared with a pen of Buff Orpingtons the third place in the scoring list for September. This is an apposite example, because, although it has been known to be capable of a good winter production, the breed is primarily characterised by its table qualities, for which it has been bred for generations. The question, therefore, arises as to what will become of these qualities if—encouraged by a possible good record in competition—egg-production is to any increasing extent bred for in the future? A probable result would be the development of distinct strains of birds bred and selected for opposite qualities; but how unnecessarily confusing for the novice! It may be to some extent unavoidable at such a period as that through which utility poultrydom is now passing, but it can scarcely be denied that some of our methods involve a good deal of waste; and any attempt to divert a breed from the useful development of past generations can only be described as waste, when there is other available material.

Fertility.

Producers of chickens for the early trade will do well to pay extra attention to the condition of their breeding stock, in view of the character of the rearing season and the varied influences to which their stock birds have been exposed this year. It is useless to attempt the hatching of a large number of chickens unless reasonably assured of the suitability of the parents, and their preparedness for the production of strongly fertilised eggs at a trying period. It would be far better to delay matters for a few weeks, and there is no great gain for the general purpose in having many newly-hatched birds about until the turn of the year. The running of breeding stock in large flocks is never to be commended, although it is often much more successful than might be expected; but this year the general backwardness of stock suggests the advisability of strictly limiting the numbers of the hens or pullets mated with each male—and the latter must be carefully selected.

THE PREPARATION OF CHRISTMAS PRODUCE.

By J. W. HURST.

THE Christmas market is the present goal of poultry-producers in all departments of their preparation, and a large proportion of the birds of all descriptions that are now undergoing the fattening process are destined for that demand. It is a special demand with a character of its own, and as such it requires special preparations, whether the birds involved are turkeys,

geese, ducks, capons or chickens. Although, perhaps, in some particulars size is not so highly considered as it was a few years ago, it is quite certain that quality and condition are required—and in as superlative a degree as may be. The preparation is cumulative, and the result is achieved by successive stages—back through



TWENTY-FIVE POUND TURKEYS. [Copyright

fattening, rearing, and incubation to the ancestry of the existing stock; but the marketable appearance owes much to the treatment of the subject during the few weeks preceding killing, and although the finishing process may be well under way, much remains to be done between now and the end.

Of capons I do not propose to say much, their production in this country being strictly limited. Moreover, the operation involved in caponing is one of a very delicate nature, necessitating a certain amount of skill and practical experience for its successful performance. So rarely is caponing practised by

commercial producers that I have been able to discover only one farm in a very considerable area of the chicken-raising South upon which it is performed systematically as a part of the regular routine, and in that case the circumstances are exceptional—the farm being the rearing-ground of a poulterer with a select West London trade ; but even in this instance the output is numerically small, and confined to the one season of Christmas. It is, of course, very generally known among practical producers that large and well-fattened fowls of the "Surrey" description frequently pass for capons with the generality of consumers, although it is doubtful whether the actual producer benefits to the additional extent of the fancy pseudonym, and we may very well leave the subject of capons, as such, as being outside the range of the average preparation.

Chickens follow in natural sequence, and a considerable proportion of their fattening course remains to be covered ; but the important period of cramming is rapidly approaching, and until its actual arrival the birds must be kept "pecking." This maintenance of appetite during a sufficient continuance of trough-feeding is always a test of skill, the severity of which is increased in proportion to the length of time and the endeavour to secure the rather extra quality and condition that is looked for in the Christmas market. A common fault of the inexperienced is to put fowls on too full a ration at the beginning, and to attempt to force them unduly throughout the preliminary stage of trough feeding, the usual result of such an ill-advised method being a set-back, consequent upon impaired digestion. The cure necessitates a fast, and the subsequent regaining, as far as may be, of lost ground ; but such a mischance may be

avoided by a careful regulation of the rations and their gradual adjustment to the requirements as fattening progresses, and only by so doing can chickens be brought to their highest possible point of perfection as trough-feeders, at the proper time for the commencement of cramming. A uniformity of treatment throughout is likely to defeat the object in view, and the best treatment is progressive in character. Not only must the quantity of food allowed at each meal be gradually increased until during the few days immediately before cramming the supply must equal the largest appetite, but the consistency of the mixture should be regulated, being rather more liquid at first than subsequently. During this and the time of cramming the birds must, of course, be cooped, a condition of confinement that is necessary to secure the full benefit of the feeding, but also one that necessitates the careful dieting referred to above ; and for this purpose there are several admirable coops obtainable from the appliance makers.

Despite the exercise of the greatest skill in trough-feeding the period is not uniformly controllable, and its termination must to some extent depend upon the individuality of the birds ; and to the same extent the continuance of cramming is not always according to timetable, so much depending upon the health of the chicken and its maintenance under extremely artificial conditions. Three weeks is about the normal extent of the complete process, and such additional advantages as are obtainable by any prolongation depend almost entirely upon the practical knowledge of the fattener.

The character of the food is as important a consideration as the manner of feeding it ; yet, although the factors involved in successful fattening are so dependent



FATTENING AND COLD STORAGE PLANT AT SZABADKA, HUNGARY.
Capacity—100,000 Chickens, 30,000 Geese, 20,000 Ducks, and 15,000 Turkeys.

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upon one another, it is obvious that the quality of the result cannot be of the finest description without the use of suitable feeding-stuffs, just as it is plain that these will not be made the most of unless presented properly. I am quite aware of the fact that it is a repetition to insist that Sussex ground oats, milk, and fat, in combination, make the one fattening mixture that may be regarded as the best for most purposes; but I am satisfied that it is not a vain repetition, and I hope to continue making it as long as there is one uninitiated reader. There are other mixtures just as there are other results, but I reiterate the superiority of this one—more especially for the preparation of Christmas produce.

I have not really neglected the turkey, or misunderstood the relative importance of the larger bird at this season, but I have considered the chicken first as representing a wider preparation; moreover, the practical application of the general principles is very similar in both cases. The month of special preparatory feeding, which is about the average fattening period of the turkey, has been already commenced; and the occupants of the large, airy shed—such as is most suitable for their accommodation—that were in the best running condition at the beginning of their confinement, will respond most readily to the fattening process. This requisite initial excellence of health and condition is, if anything, of even greater importance in the case of the turkey than that of the chicken, because in the larger bird we have to do with a very delicate and easily disordered digestive system. It will therefore be seen that the remarks relative to the progressive nature of the feeding, and the due regulations of quantity and consistency, apply very strongly to the fattening treatment of the turkey. At the commencement of feeding for fattening, feed lightly, and remember that most of the trouble connected with these birds is the result of over-feeding; recollect also that the real preparation of turkeys for Christmas begins with hatching—perhaps more entirely than is true of the other stock. In addition to the standard fattening mixture to which I have alluded, barley-meal, wheat-meal, and buckwheat-meal are also used as ingredients by many feeders, as well as swedes, potatoes, and other vegetables; but—and this is an injunction of general application—grit is always essential. Although some fatteners consider that two meals daily are sufficient in fattening turkeys, the peculiar constitution and requirements of these birds suggest that three are preferable, and that number is allowed by some of the largest marketers. It is also a very common and beneficial custom to scatter some good sound oats in addition to the trough-fed mixture, and my own experience approves the use of some grain in this manner—but only when more exercise is allowed than is possible in a shed—and the restricted use of a strictly limited range is of considerable help in the maintenance of health. This is, however, a matter of opinion, and methods vary to some extent; but total confinement towards the end of the period, if carefully judged, is usually considered to be both reasonable and preferable. As to whether turkeys should be crammed or not, I can

only say that the process is not particularly easy, the birds being heavy and awkward, and the time and labour involved are by no means inconsiderable; nevertheless, it is a matter that must be decided in accordance with the condition of the turkeys and the requirements. It is by no means generally necessary, and I know some who have given it up on account of the increased cost of labour, which is held to be disproportionate to the return.

Fat geese, although forced into the background by the greater prominence of turkeys at the Christmas season, still fill a place of their own, and the preparation for the occupancy of their relatively inferior position involves the same importance of previous condition and present confinement. The denial of access to swimming-water is essential in the case of water-fowl undergoing special feeding, and geese do well upon the well-bedded floor of an open-fronted shed. A very usual soft-food mixture for morning feeding consists of barley-meal and sharps, to which some add brewers' grains; but I adhere to my preference for ground oats, as used in feeding the other descriptions, if the finest quality is desired. This should be fed in a trough, as also should the grain that is supplied at night; the latter in the water-trough together with grit, and barley is usually preferred. Some green food is allowed, and the quality of the flesh is very much improved if milk is used in mixing the soft food during the final fortnight. Ducks are housed in a similar manner, and allowed two full meals daily of a soft mixture, which may contain barley-meal, buckwheat-meal, and some maize-meal, with sharps—or the standard mixture that permeates the whole of these notes.

Water-fowl may be allowed a final swim to cleanse their plumage, if this is necessary, and fattened birds of all descriptions must be fasted before killing. As I have indicated one standard of excellence relative to a fattening mixture most suitable for the attainment of Christmas quality, so I will conclude by saying that one method of killing surpasses all others—whether the bird be turkey, chicken, duck, or goose—viz., dislocation of the neck.

FOWLS ON A FRUIT PLANTATION.

AT the field meeting of the Massachusetts Poultry Association, Professor F. C. Sears said that “the influence of a flock of poultry in a fruit plantation is of importance in its effects on the results from the fruit. Such destructive insects as the canker-worm may be kept in check by poultry. The pupæ of these worms winter in the ground. Fall ploughing an orchard turns up these pupæ in quantities, and if fowls have access to the orchard they destroy them as fast as uncovered, and also uncover more by scratching the loosened earth. The plum carcalio, another insect as troublesome in apple orchards as in plum orchards, is destroyed in the same way.” Other insects specially mentioned were the codling moth, railroad worm and borer. Poultry are useful also in fertilising fruit crops and keeping down weeds.

TURKEY - BREEDING.

By S. C. SHARPE.

I OFTEN think that poultry-keepers and farmers are making a mistake in not breeding more turkeys than they do. Thousands of birds are sent over here from Normandy and other countries every year, and many tons come into Newhaven during the last few weeks in December; good birds, too, some of them, but most people prefer English birds, and these are difficult to purchase. Although there is plenty of land on which they might be reared, there are very few



STOCK TURKEYS AT LIBERTY. [Copyright

reared in this county of Sussex. The largest breeder I know has bred a flock of 320 fine young birds this season which will pay him well. I think the cause of poultry-keepers and farmers not breeding more turkeys is mainly the erroneous idea that they are so delicate and difficult to rear. I would point out that this is really a mistaken idea, and this can be proved by the nice birds one sees reared on a small farm, with, perhaps, a stiff, cold, clay soil. I have for some years reared birds on a soil of this kind, and have a fine flock of young turkeys this season, with only two birds out of the lot which show signs of leg weakness. The birds are

not so difficult to rear when a few points are kept in mind, and after they are three months old there is no fowl which is so hardy and which feels the changeable weather less than turkeys.

A flock may be started in two ways, either by buying some eggs for hatching or buying stock birds. The former is perhaps the cheapest way to start a flock, but of course takes much longer, for the birds do not come to maturity until the second year; and although one will get some eggs from them the first year after hatching, it is not wise to use them for sitting purposes, as the youngsters are likely to be weak on the legs, and many of them become crippled before the end of the summer, even if they can be reared at all. Should the summer be an unsuitable one, it is doubtful if many can be reared; therefore it is better to wait until the second year before using the eggs from the young hens. Should the flock be started in this way, it is well to buy eggs from different breeders so that the best cockerel may be saved for mating. This will insure a start in the right direction, for it is disastrous to mate related birds together. Leg weakness, crooked breastbone and all sorts of bad complaints almost inevitably result. The better plan is to start with a flock of hens from some good breeder, and there is no better time than the present for selecting stock birds. I had the chance a week or two ago to select a few hens and a male bird from the flock of 320 birds which I have previously mentioned, and having such a good number to choose from could, of course, get some excellent birds.

If one wants to rear, say, fifty or sixty turkeys, they will only require four hens and a male bird. The hens can be bought for 25s. or 30s. each, good birds, and a cock, weighing 23lb. or more, can be got for 42s. I can get any number I want at this price before Christmas. If they are bought in December they will get settled and used to their new quarters before laying commences. They generally begin to lay about March 10, sometimes a little earlier—it somewhat depends upon the season. The American Mammoth Bronze is among the best for general use. They grow quickly, and attain good weights by Christmas if hatched fairly early in the season.

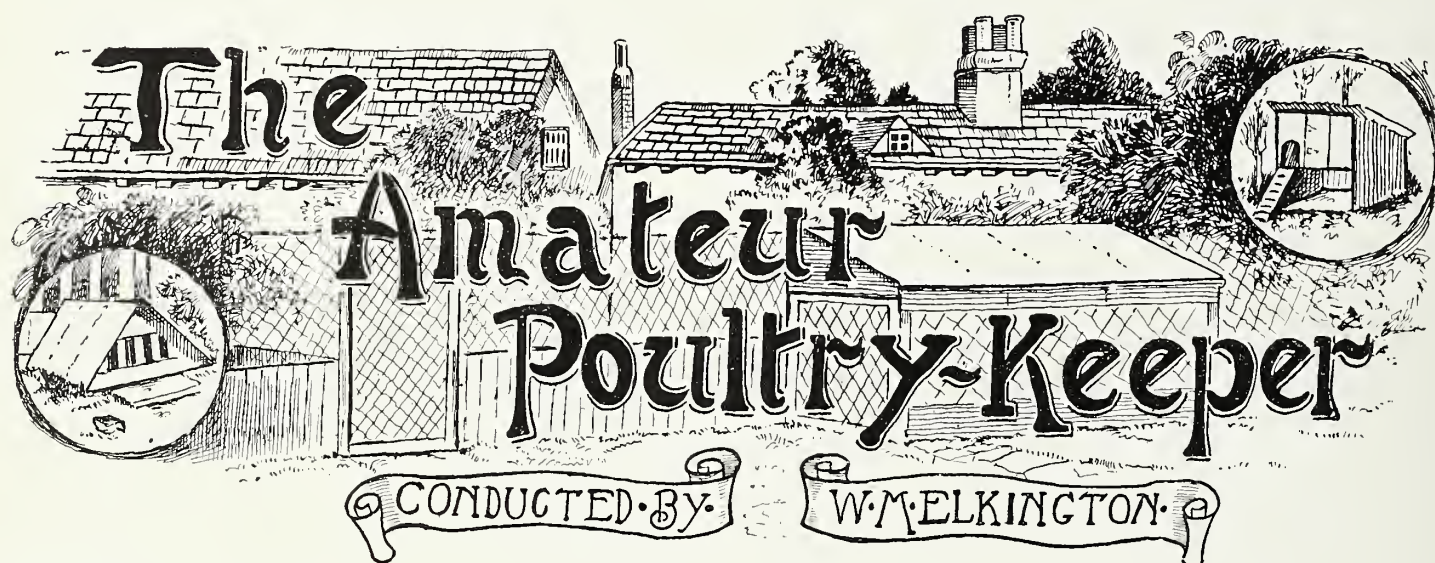
Now, a hint as to one trouble we often get in the spring. We are anxiously waiting for egg-laying to commence, and think, as the birds look well, there will soon be a batch of eggs ready to put down for hatching. Alas! When they start we find plenty of eggs, but hardly one of them with shells. They may be fit to eat, but they are of no use for our purpose, and so we find the best part of the season going and no eggs to put down, which spoils all chances for the big, early, young birds for the next Christmas. Yet as time goes on we find the shells get stronger, and we often wonder at the cause of this trouble. It is caused in this way. The birds have been fed too well, and when they begin to lay the eggs come faster than they can be shelled; consequently we get soft shelled, useless eggs. *Never* give stock turkeys extra food to force them to lay. They will start at the proper time, and then, if they are laying well, a

little meat and extra diet may be given to keep the supply going. Do not forget that turkeys require a large amount of grit and shell ; no fowls eat more of this substance than turkeys, and if they are to be kept in condition they should never be without it.

When buying the male bird, it is well not to get one much bigger than the hens, or it may lead to infertile eggs. It is not wise, for instance, to mate a 35lb. cock with 18lb. hens. I have seen this done, though with bad results. It is much better to have a medium-sized male bird. The eggs should all be taken away from the nest as they are laid, so that the hens will not get broody so soon ; but the turkey hen may be allowed to sit on her second batch of eggs. This natural rest will do the bird good, and if allowed to sit, the good results will

show next season by a heavy batch of eggs. The eggs should be put down under good, large, broody hens, the nest being made in sitting-boxes placed on the ground in the usual way, not forgetting that the hen should be taken off the nest once every day for a good feed and water. She has to sit on the eggs for twenty-eight days, and therefore must be well cared for, or she may spoil a batch of eggs just before hatching.

In conclusion, I would ask all farmers who have sufficient land that is at all suitable to breed a few turkeys, and so encourage the home production of this useful fowl, for there is always a good demand for birds in December, and with fair success one may make a nice little profit and have a useful cheque for the flock when sold.



The Weather and Its Effects.

Circumstances over which one has no control have conspired recently to render the lot of an amateur poultry-keeper somewhat disagreeable. As an amateur put it to me a short time ago, what with an excessive amount of wet weather, cold winds, and muddy ground, combined with the high price of foodstuffs and the difficulty of getting birds into laying condition, there has been neither pleasure nor profit in looking after poultry, and this kind of thing is bound to have a discouraging effect upon many people. I am afraid the indictment is true. Under existing conditions one cannot conscientiously point to poultry-keeping as a pleasurable and profitable hobby ; but it is some satisfaction to remember that these conditions are exceptional, and we all hope that they will not last very long. It is also worthy of note, by the way, that the gentleman whose pessimistic opinion I quote is not blessed with that invaluable commodity a scratching-shed. His fowls run about on a small patch of grass, at the present time churned into a mudbank, and when they require shelter they have to go into the house. The present season has served to convince us how incomplete a

poultry-yard is without a covered run in which the birds may take exercise during the day, and the only amateur I know who can look back upon the autumn of 1909 with complacency is a man whose covered accommodation renders his stock practically independent of the weather.

The Problem of Egg-Production.

Under ordinary circumstances egg-production has been hindered by the weather conditions, and professionals as well as amateurs have experienced the difficulty of bringing on both pullets and old hens. In the case of early pullets, my experience has been that those which were laying during August and September fell into moult in October, and this seems to have been the case generally. I have noticed that this autumnal moulting of pullets is more general during damp, depressing weather than in a dry and bracing season. The later-hatched birds have been hindered in development, and at the time of writing very few are in a fit condition for laying compared with what they would be in a normal season. We are quite right in blaming the weather, for its depressing effects are responsible for the backwardness of birds, and the only way in which

we can hope to counteract its effects, apart from the provision of large sheltered runs, is by giving food of a character to stimulate vitality. Cooked meat is the very best thing for birds under such circumstances, and a fairly generous supply three times a week will soon bring about an improvement. To keep the cost low, one can buy lights from a butcher, boil them, and put them through a food-chopper. An occasional dose of poultry powder is also beneficial, for the birds need a tonic to stimulate vitality in spite of depressing surroundings.

Feeding Times.

I believe that many people are under the impression that in order to be successful with poultry one must get up at an unearthly hour to attend to their requirements. A lady told me only a few days ago that she would not keep fowls (although she had an ideal place for a small pen of laying hens) because she disliked the idea of going out of doors as soon as it was light in the winter. As a matter of fact, however, there are times when poultry should be out, and other times when they are far better kept in the house. During the spring and summer, and even the early autumn if the weather is fine, it is a decided advantage to let birds out early whilst the dew is on the grass and there is plenty of insect life about. It is not everyone, however, who can do that, and even if one cannot be about until seven or eight o'clock, some hours after the sun has been up in summer, there is no reason why the fowls should not do well, though not so well as those which are let out earlier. But in winter there is nothing to be gained by letting them out before the average amateur is in the habit of coming down for breakfast. The best way, however, to overcome this difficulty and others at the same time is to have a scratching-shed attached to the roosting-house into which the birds may go as early as they please, and if a little grain is scattered among the litter overnight they will have an incentive to scratch and keep warm until the regular breakfast comes along.

Changing Breeds.

It is by no means uncommon for amateurs to discard one breed for another, probably being prompted to do so by glowing reports of this, that, and the other. In some cases that have come to my knowledge people have had good cause to regret the change, for a good deal of extravagant praise is lavished upon certain breeds by persons who are interested in making them popular, and the trusting amateur often finds himself worse off than he was in the beginning. Before changing one breed for another, presuming that the one kept has not given satisfaction, it is desirable to remember that in the case of inexperienced persons failure is frequently due to errors or carelessness in feeding or management, and no breed could give good returns under such conditions. Then, again, one often overlooks the question of strain. Your neighbour may have a remarkably prolific stock, whilst your own birds, of the same breed, and fed in the same way, lead comparatively idle and useless

lives. So in that case it is evident that you need to change the strain instead of the breed. Nevertheless, a great many amateurs who commence poultry-keeping with very little knowledge do take up unsuitable breeds. It would be a mistake, for instance, for a person with a very small sheltered space to keep fowls of a heavy, inactive type, and equally useless for anyone living in an exposed situation to take up a breed that was not essentially hardy. On these points it is advisable for amateurs to take expert opinion, and I would advise all who are thinking of changing one breed for another to place the facts before an unprejudiced authority.

Amateurs at the Shows.

Although fancy poultry-keeping may be a lottery for those who are not well versed in its mysteries, it is satisfactory to be able to record cases of amateurs drawing some of the rich prizes. The other day I heard of an amateur buying a sitting of eggs and hatching four birds that won prizes at important shows, and eventually realised substantial sums. The best of the four was claimed at a fairly important show (where it won the special for the best bird in the show) for ten guineas, and the other three were sold for eleven pounds. It is such cases as this that tempt the novice to spend his money on eggs for hatching; and, by the way, there is scope just now for the amateur enthusiast in fancy breeding. To be successful one must be an enthusiast, for there are many difficulties to be overcome and disappointments to be faced. It is not worth while going in for this branch of poultry-keeping in a half-hearted manner, and in the belief that all will be plain sailing.

FATTENING ON A SMALL SCALE.

By A SCOTTISH AMATEUR.

THAT much might be done to improve the quality of table-poultry in Scotland is unquestionable, and, this being the case, surely the time has come to take up the matter seriously.

In many parts of the country it is impossible to procure really well-fleshed chickens, those offered for sale being, more often than not, made up of the maximum of bone and the minimum of edible material, with the result that anyone desiring the best quality of table-birds must seek them elsewhere, and thus we in Scotland are allowing annually to slip through our fingers, into the pockets of English, Danish, and Irish fatteners, profits that, if noted in black and white, would make most of us open our eyes. Does not the remedy for this lie in our own hands? The sooner we apply it the better.

It is not within the means of everyone to start a fattening station on a large scale with elaborate plant, but it is within the capacity of most of us to bring our intelligence, our energy, and our enterprise to bear upon the simple means at our command for improving the quality of the chickens which pass through our hands, whether for market or for home consumption. The

subsequent description of some home-made fattening-pens, with details of the weights gained by the chickens and the method and cost of feeding, may prove of interest to other amateur poultry-rearers, who also have spent sleepless hours worrying out the problem of how chickens may be brought on, with the smallest outlay, in the shortest time.

These pens are made of wooden packing-cases, measuring 2½ ft. by 1½ ft., the bottoms of which have been knocked out and replaced by slats 2 in. wide and 2 in. apart. The fronts are fitted with bars through which the chickens can feed, and a shelf holds the feeding-trough. The pens are raised about 1½ ft. from the ground on four legs. This size holds two chickens comfortably, allowing room to turn, but not sufficient to move about. The food is given in liquid form, and consists of oatmeal, ground oats, and white sharps,



A HOME-MADE FATTENING CAGE. [Copyright.

moistened with sour skim milk to the consistency of thick cream. This comprises both food and drink, so that it is unnecessary to provide water. The chickens are fed three times a day, as early as possible in the morning, at midday, and about six o'clock in the evening. As soon as the birds are satisfied, what remains of the food must be removed. Nothing is more fatal to success than to leave food before the birds between meals. Cleanliness also plays a most important part. The pens should be cleansed morning and evening, so that they may always be perfectly fresh. Before penning, the birds are starved for thirty-six hours, and then weighed on being placed in the pens, which stand in a quiet, shady corner, away from the disturbing influences of the other poultry. Between meals, a canvas curtain is drawn across the front to darken the pens, and so encourage the inmates to rest as much as possible. As a rule, it is not wise to pen chickens for fattening before

they are twelve to fourteen weeks old, and weighing not under 3 lb. At the end of the first week the birds are again weighed, and the increase in weight noted. During the whole period of incarceration the chickens must be closely watched, but more especially towards the end of the second week, when they become satiated by this method of feeding, and very quickly begin to go off in condition when the limit is reached. In this, as in other matters of life, there is a psychological moment; to seize it means success, to lose it, failure.

After two weeks or thereby, it is necessary to call in the aid of a cramming machine, but this is beyond the province of the amateur, and all that the foregoing account claims to be is some experiences of chicken fattening, by an amateur, conducted on the very simplest lines.

The subjoined table will show the weights of the birds at the end of one week and at the end of two weeks. The cost of the special feeding comes out, as nearly as can be calculated, at the rate of 2½ d. per bird per week.

	Weight when penned		Weight at end of 1 week		Weight at end of 2 weeks
A.	4 lb.	.....	4½ lb.	.....	4¾ lb.
B.	4 lb.	.....	4½ lb.	.....	5 lb.
C.	4 lb.	.....	4½ lb.	.....	4¾ lb.
D.	4 lb.	.....	4½ lb.	.....	4½ lb.
E.	3½ lb.	.....	4 lb.	.....	4½ lb.
F.	4½ lb.	.....	4½ lb.	.....	4¾ lb.
G.	3¾ lb.	.....	4½ lb.	.....	4 lb.
H.	4½ lb.	.....	4½ lb.	.....	4¾ lb.

(MISS) M. G. MACQUEEN.

THE AMATEUR'S GUIDE FOR DECEMBER.

THIS is one of the most important months of the year in more respects than one, for it not only marks the end of the market breeder's season, but the beginning of another season for both fancier and utilitarian. The amateur is more or less affected in both cases, for the festive season provides him with a good opportunity to clear off the last of his surplus cockerels, and the approach of a new breeding season reminds him that it is time to be making his arrangements for hatching or, at any rate, for mating his stock.

First of all, however, let us consider the disposal of the surplus stock. Now, some people imagine that one can dump any kind of rubbish on the market at Christmas time, and it will realise a good price. But that is a mistake. There is so much rubbish about, foreign and home grown, that the value of such produce never rises beyond a certain mark, but for fat young fowls there is always a steady demand, so that the proper procedure is to get flesh upon the birds without delay. The degree of success attending this operation will depend upon the age of the birds and the way they have been brought up. Half-grown raw cockerels are difficult to fatten, whereas birds that are well forward in condition and that have been fed generously during the past few months can be got into good condition with very little trouble.

For the amateur who has no convenience for cramming

we cannot recommend the plan of confining the birds closely in an outhouse, for sooner or later they will go off their feed and will fret under such conditions. Keep them in a small, sheltered run by all means, and be sure that only birds which have been brought up together are allowed in the same run, for quarrelling and bullying are fatal to progress. Feed the birds three times a day in troughs, let them eat as much as they can, and remove the troughs after each meal—never leave food about.

For the first feed of the day use house scraps, boiled potatoes, or a mash made up of maize-meal, pea-meal, and Sussex ground oats. The ground oats with scalded house scraps or potatoes make a serviceable and economical feed for this purpose. Then at midday give scraps of meat and fat, with more soft food, such as we have recommended, whilst for the last meal of the day let the birds have a good feed of maize, wheat, and oats. Do not forget a little green food and grit every day, and let the birds have plenty of water to drink.

Three weeks of feeding on these lines should add materially to the weight and to the value of the birds for table purposes, and when the time for killing comes, see that they are starved for twenty-four hours, in order that they may be the more easily cleaned. Killing a fowl is a very simple matter when you know how, but many amateurs find difficulty in dislocating the neck. The proper way is to grasp the legs and wings with one hand, and with the other clasp the neck between the first and second fingers from beneath, resting the thumb upon the back of the head. Then simultaneously stretch out the neck and put pressure upon the thumb so that the head is forced back, causing dislocation. Pluck whilst the birds are warm, but whether the birds should be drawn and trussed or not depends upon the market for which they are intended.

We invariably advise amateurs who have only a few birds to dispose of to sell them among their friends or obtain private customers locally, which is not a very difficult matter at Christmas time, and such customers naturally expect the birds to be prepared ready for the table. When they go to a dealer, however, it is customary to send them plucked, but not drawn and trussed. Finally, there is the question of price. "What shall I ask my friends for these fowls?" says the amateur. Obviously, the price must depend upon the quality and size, but for well-fattened young cocks five or six months old at such a season one might reasonably demand 6s. 6d. or 7s. per couple.

And now a few words with regard to breeding stock. For early breeding you must depend upon well-developed stock, and for general utility purposes we prefer yearling hens to pullets, if such birds are laying. Choose a vigorous, well-developed cockerel to run with them, and mate up the pen from four or five weeks before fertile eggs are required, to give the birds plenty of time to settle down. Some exhibition breeders have already mated up their pens, and will have chickens out on New Year's Day; but even if the amateur cannot do this there is no reason why, by putting a pen together at once, he should not have chickens out during next month.

REVIEWS.

THE ENCYCLOPÆDIA OF POULTRY. Edited by J. T. Brown, F.Z.S. ("Chanticleer"). Walter Southwood and Co., Ltd., 30, Craven-street, London. Price: Edition de Luxe, 25s.; Popular Edition, 10s. 6d. net.

ONE of the most important additions to the vast amount of poultry literature which has been published during recent years is undoubtedly "The Encyclopædia of Poultry," ably edited by J. T. Brown, F.Z.S. (he is perhaps better known as "Chanticleer"). The aim of the book is ambitious, for it is no less than "to focus into a compact, yet comprehensive whole" all knowledge on all branches and sub-branches of the poultry-keeper's art; to form a reference book on every phase of the subject for "fancier, farmer, small holder, or back-yarder." It has been written by experts, men well known in their own sections of the industry, and to hold the interest of a larger portion of the reading public than is seriously engaged in poultry-keeping, the articles are written in a popular style, and as far as possible technicalities have been omitted. A very important feature of the work is the way in which the book is illustrated. There are a hundred and five full-page illustrations in colours and black-and-white by well-known artists, while the number of small pictures, for the most part reproduced from photographs, must run into hundreds. In the main they are admirable. It is unfortunately true that there are many conflicting elements in the poultry world, more particularly among fanciers, and this has been realised by the editor, for he says: "Bearing this in mind, great pains have been taken to avoid, as far as possible, the introduction of controversial matter," and after a perusal of the book we feel that he has succeeded to a remarkable degree. That certain statements and ideas expressed are open to objection is to be expected, but taking into consideration the wide field covered, it is surprising how few points there are that are open to adverse criticism. The contributions dealing with utility poultry-keeping are up to date, and an outline of the rapid strides which have been made in the industry within recent years finds place for mention. Special attention is drawn to a very fine series of photographs illustrating the development of the embryo chicken during incubation from the first to the twenty-first day. Although we have seen one or two better individual pictures of the same subject, the number reproduced certainly forms the finest series that has as yet been taken. One other series of pictures deserves comment—namely, that depicting the various movements and actions in preparing a bird for the table. The photographs are good, and show clearly how one operation follows another; but we consider that it would have enhanced their value if the text descriptive of them had been fuller and more complete. The price of the Edition de Luxe is, we should think, rather higher than the majority of the smaller poultry-keepers would care to pay, though undoubtedly the two volumes are well worth the sum asked for them. To meet the demand, however, for a cheaper edition, a popular print has been issued at 10s. 6d. net.

"The Encyclopædia of Poultry" is splendidly produced, no expense having been spared by the publishers so far as paper, printing, and binding are concerned. It is a work that we can heartily recommend to all those interested in the poultry industry, since it is a mine of information on all sections of this important and profitable branch of agriculture. We congratulate author and publisher alike upon producing so valuable an addition to poultry literature.

THE MODERN MINORCA FOWL. By Fred Tootill. *The Feathered World*. Price 1s.

THE Black Minorca, like the White Wyandotte, is a breed that enjoys a peculiar popularity with the amateur poultry-keeper at the present time, and this very readable little book by an acknowledged expert may be read with profit by all who are interested in the breed. After a brief historical sketch of its introduction into this country, which took place early in the last century, the author describes what in his opinion constitutes the ideal specimens of each sex; pronounces for the dual system of breeding and pedigree, and gives directions for the management, the rearing and feeding, the washing of show birds, &c. The Minorca has, since its importation, developed increased size of body, but whether this increase has been attended by any loss of utilitarian qualities is still a debatable question. Mr. Tootill necessarily takes the view that no such loss has taken place. He says, moreover, in regard to the general claim that more size means fewer eggs, that it has "no logical foundation," and is quite opposed to the author's experiences. He takes a similarly decided line on the matter of in-breeding, maintaining that "by in-breeding not only are the external characters of the bird or animal under complete control in the hands of careful and experienced management, but that constitution can be strengthened and utilitarian qualities increased." But he admits that in-breeding has its dangers for the novice, simply because the latter is taught to proceed by rule of thumb. In regard to rearing, he warns the reader against the American dry-food system, if size and feather are desired. "In my view," he writes, "soft food is essential for rearing Mediterranean breeds to advantage, and should represent the bulk of the diet. During the early stages pin-head oatmeal, scalded with boiling milk, is what I have found most satisfactory, and the grain foods should be represented by small wheat, groats, hemp seed, and canary seed." As for incubators, he describes his own system as follows: "We set from four to six hens on one day, and give them charge of the eggs up to the nineteenth day, when the whole of the eggs containing live chicks are transferred to the incubator, in which they are trusted until hatched out. The chicks are then returned to the hens, and this represents the

extent of the faith I have in incubators." It will be gathered from what we have quoted that Mr. Tootill is not disposed to compromise on any point of management, but his cheery dogmatism is rather exhilarating than otherwise, coupled as it is with an unflinching contempt for the lazy ones whose supreme object in poultry-breeding is to save themselves personal trouble. The book is illustrated by photos, diagrams, and drawings, and in an appendix are given the tabulated standards of the British Minorca Club and the Minorca Club.

TURKEYS: Their Care and Management for Exhibition or for Market. *Reliable Poultry Journal* Publishing Co., Quincy, Ill., U.S.A. Price 75 cents, post paid.

THIS is a new and enlarged edition of an American publication, which has been revised to meet the standard requirements for turkeys; and it is said to anticipate the American standard of perfection, which is to be published in 1910. No less than thirty-five writers, all practical breeders of turkeys, contribute to the contents, while the varieties treated include the Bronze, the White Holland, and the Narragansett. The most notable feature of the illustrations is a frontispiece of two mammoth Bronze Turkeys, drawn by Mr. Franklane L. Sewell, and finely reproduced in colours; the seventy-one pictures in half-tone and line, which are contained within the body of the book, being content, perhaps, to illustrate a point referred to in the text rather than to be pictorially pleasing. Even with this moderate ambition, however, several of the photographs might have been better done, a tendency to nebulousness about the head or the legs being a too conspicuous feature of many of them. The text, on the other hand, is admirable in its conciseness and authoritative in its information relating to every department of turkey-breeding. The fancier will find here an instructive article on "Score Card Judging"; while among other subjects dealt with in these pages we would call special attention to the articles on the "Seven Standard Varieties," "Making the Breeders," and "Coops and Houses for Turkeys and Poults."

THE BOOK OF THE GOAT. By H. S. Holmes Pegler. L. Upcott Gill, London. 321 pp. Illustrated. 6s. net.

THIS book should prove of considerable value to those interested in agriculture and small holdings. Among the many subjects dealt with are the different varieties of goats, pasturing, stall-feeding, milking, breeding, rearing of kids, and general goat-farming, as well as diseases and parasites. It should prove a valuable addition to the library of those interested in the subject.



NOTES FROM NATAL.

By JAMES FLETCHER.

Imports of Eggs.

This being our spring season, we are having unlimited supplies of eggs, and prices are at their lowest—the rates ruling on the morning market in the towns (where most of the dairy and garden produce is daily submitted to public auction) at from 7d. per dozen for “eggs” up to 1s. 3d., or thereabouts, for the best marks of “new laid.” In another three months (I am writing in the middle of October) these prices will have advanced considerably more than 100 per cent., as new lays will then be from 2s. 6d. to 3s. per dozen, whilst later on they will at times touch at least 1s. higher.

It is during this later period that we get Madeira, Irish, Italian, Danish, and even Russian eggs palmed off on the unwary householder as Colonial Fresh Eggs, and though in Natal the trade is by no means so great as in the Cape Colony, yet we are quite in sympathy with the movement that has been initiated by the producers of the mother colony to have all eggs marked with the name of the country of origin. At present, however, there is not much probability of the suggestion being adopted, as not only was the Colonial Secretary somewhat unsympathetic to the deputation of producers that recently waited on him, but the Capetown Chamber of Commerce has also declared against the proposal.

The most satisfactory feature, however, is that the imports of eggs are steadily decreasing, and it is hoped that in a few years this item may be struck off the list of imports. This desirable state of things will only be realised by a gradual adoption of an alteration in the breeding season. At present, fowls in Natal, as well as in most other parts of South Africa, come on to lay about July, and continue until about November; that is what may be termed the natural season. This is, of course, also the breeding season, and as our rainy period commences in September, it is not by any means an ideal time for the rearing of the young stock.

Time of Hatching.

It is generally supposed that the spring rains followed by the effect of a hot sun on the ground release certain malaria germs in the soil which produce chicken-pox and enteritis, two diseases which decimate the young chickens but do not seriously affect those of older growth. Hence the opinion is steadily gaining ground that an effort should be made to endeavour to advance the breeding season by about three months, commencing at the latter end of April or the beginning of May, when the weather is absolutely ideal for bringing up young stock, as it is quite exceptional to have any rain during May, June, and July, whilst the temperature is not very low. In Durban our coldest nights are not often under 45 deg., and the days average about 60 to 70 deg. The effect of the alteration would, of course, be that the supply of eggs would be materially increased at what is now the scarce time, and a gradual levelling up of prices would result.

Whether it is possible to do this on a sufficiently large scale to affect the breeding season permanently is doubtful. That it has been done successfully in many instances is undoubted, but after the first year the fowls fall into their natural moult—that is, in our autumn from February onwards—and are found swelling the egg-basket when eggs are at their lowest price. It seems possible that a few years of steady perseverance might so overcome the natural obstacles as to attain the desired result. At any rate, that is the two-fold problem that many of our poultry-farmers have set themselves to solve—the minimisation of the two most dreaded chicken diseases, chicken-pox and enteritis, and a fairly regular “all-the-year-round” supply of eggs.

Importations.

During the last week or two quite a number of shipments of various kinds of poultry have landed at our port (from England mostly) in very good order, though some have given evidence of not being too well cared for on the voyage, as the pens were dirty and in one or two

instances were very "roupy." It is remarkable how different the condition is of fowls arriving here by different steamers of even the same line. If the captain or one of the officers happens to be a lover of live stock, he makes it his business to see that those whose duty it is to attend to them do their work properly. So far as the steamship owners are concerned, there is no doubt that their desire is that every attention shall be given, and strict instructions are given to that effect, but the question is as to whether the instructions are carried out in the *letter* or the *spirit*.

When to Export.

With reference to these importations, it is, in the opinion of the more experienced breeders, somewhat courting disaster to land birds here at this time of the year when they have to face the growing heat of the summer months before they have had a chance to become acclimatised. Undoubtedly the most successful results are achieved by fowls shipped from England in February or March, when they have our winter (so-called) in front of them, the conditions of which in Natal, except in the more northerly portions, are not a very severe tax upon them, and even there, though cold, at times very frosty, it is very dry.

EGG-LAYING COMPETITIONS IN NEW ZEALAND, AND LESSONS THEY HAVE TAUGHT US.

BY J. B. MERRETT.

Editor of "New Zealand Poultry Journal."

EVEN now there are many of our English and American friends who smile at the records attained by our birds at the egg-laying competitions. We can afford to let them smile on. The 200-egg hen is an accomplished reality on many poultry-farms in New Zealand. Just recently our twelve birds from the Poultry Institute have completed their year at Lincoln College with 211 eggs each. These returns are absolutely accurate, and are checked in such a way that it is next to impossible for mistakes to be made. For years we have been breeding for layers.

The Fancy was responsible for ruining many of our breeds. In Leghorns, Minorcas, and Langshans their attempts to produce birds to comply with the English standard led them to breed birds with long legs, monstrous combs, and bodies sadly wanting in symmetry with these parts. Birds imported from England contained these same characteristics that militated against egg-production. With inbreeding for the attainments of this false standard our poultry quickly degenerated into a lot of useless birds as far as eggs were concerned, and with this method of working the prizes fell into the hands of a favoured few, and it was not long before many recognised that, with no prize-money, no eggs, and few sales, keeping poultry was a losing game. The reaction then set in, and several breeders took up the

work of producing layers. Instead of the long-legged birds, they produced birds of shorter leg, with more compact bodies, in conformity with the English standard, as they were intended to be. With this diversion there soon came the desire for competition, and the egg-laying contests were inaugurated in 1905.

The first two years little progress was made, but the returns from the competitions for the last two contests show a marvellous increase. At the Lincoln College Competition just completed 156 White Leghorns averaged in 50 weeks no less than 192 eggs each, while the first eight pens, containing 48 birds, made a splendid average of 218 eggs each; from 244 birds in the competition no less than 14s. 2d. each was netted after paying for the food the birds consumed. As the manager of the competition was a woman, it is easy to see that poultry-farming with the right kind of stock is a payable venture. It is quite a common thing to have layers that produce 200 eggs in the year. It affords us some amusement to note the incredulous writings in English and American papers to the effect that our returns are "inaccurate," "untrustworthy," "far-fetched," "illusionary," &c. We will not attribute their epithets to jealousy or incapability to produce layers, but affirm there must be something in our climate that gives us such good results, but as yet no satisfactory explanation of what it is has been forthcoming. It is hard to calculate the immense advantage to New Zealand that the competitions have been.

The first great lesson we learned was the importance of strain. Obviously there are many birds of the same variety, but they differ widely as egg-producers. The poultryman was quick to recognise that it costs nearly as much to maintain a mongrel as a pure-bred layer from an egg-producing strain. There are some White Leghorns that figure well on the show-bench, but only lay enough eggs to pay for their food bill. There are others that also conform to the standard and lay not only sufficiently well to pay for their food, but give their owner a profit of 10s. each for his trouble. "How to select" is the great question of the modern poultryman. To the painstaking student there are obvious signs of a layer. Many of these are well-known to most breeders, but we believe that the most important essentials to success are kept secret, and sold under a pledge of honour. This may appear in the first instance as selfish, but when one remembers the years of study, the expense of experiments, no poultryman grudges the fee for reliable information. If a poultryman cannot select his layers, his breeds, his male birds, he is hopelessly lost.

Led away by the theory that cross-breeds are best egg-producers, the farmers once kept scarcely anything else on the farms. Times have now changed. Each year we see less and less of the mongrels that used to exist. The farmer has learned that pure breeds pay best. They give the best returns in eggs. Their eggs can be sold for hatching. Their progeny bring good prices as breeders. Unless bred specially for table purposes, there is nothing to be gained in cross-breeds. The farmer is now alive to this fact, and our farms of

to-day are rapidly being stocked with the pure-bred stock of whatever variety the fancy of the farmer dictates.

Those who succeed in poultry culture are men of experience. We have numerous instances of failures by men who have started out without any knowledge of the work. The rock on which they struck was inability to select and maintain their flock. The men who are at the top with large flocks of good layers are men who have surmounted initial difficulties and know how to produce birds of vitality. The poultry business, more

singular birds. The fancier will be the greatest acquisition to the poultry industry, and give it the greatest impetus that it has yet received. He will help by his knowledge of breeding. No one understands the intricate laws of breeding so well as he. In the question of feathers he is a marvel, and his energies directed along the line of utility will work wonders. We heartily congratulate the fanciers. They will also serve as a check to those careless and thoughtless utility breeders who have no eye for the beautiful, and allow their birds to



VIEW OF PENS AT THE NEW ZEALAND LAYING COMPETITION.

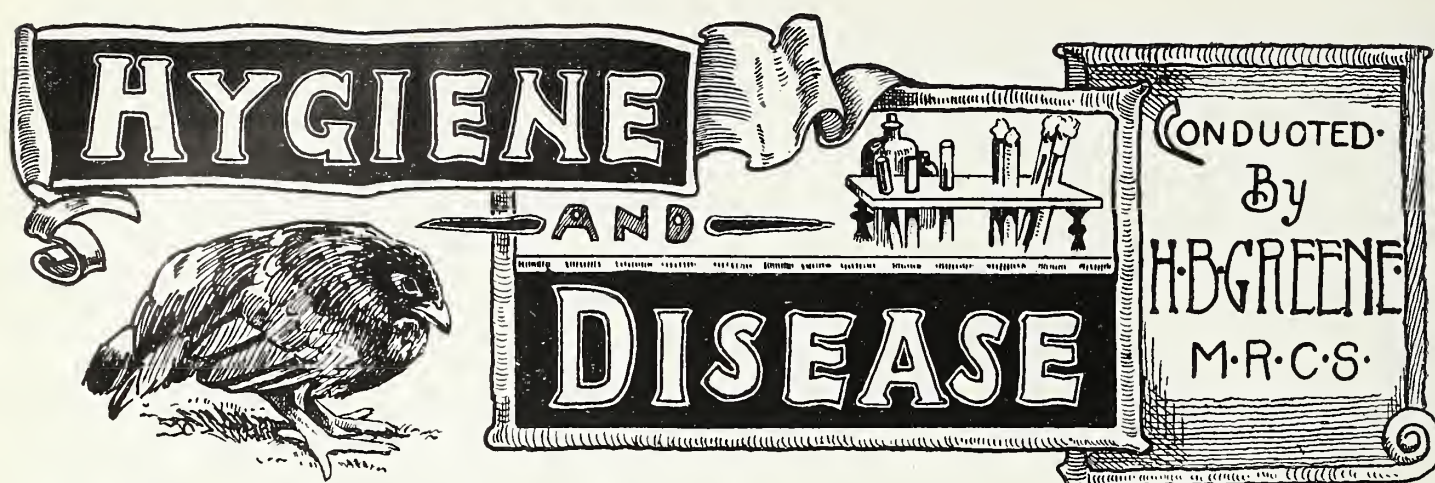
[Copyright.]

than ever, demands men of intelligence and experience, and those persons who rush in without previous training only court ruin.

It has required years of patient work, and there is still much to be done in converting the fancier from the error of his ways. It is a mighty obstacle to overcome, but the gradual loss of his business, the lack of orders for his stock, has brought him to appreciate the need for egg-producers, and he is now catering for the trade. We aim at interpreting the English standard as its designers intended it should be, and have waged warfare on preconceived standards that originated and remain only in the brain of the judge interested in sales for

drift from standard requirements. This is disastrous, and will result in a speedy relegation to mongrels. The fancier will soon create a demand for his stock. Let him demonstrate the egg-laying capabilities of his birds, and people will soon support him. During the past few years fanciers have been practically idle, while others have got in ahead of them. We have appealed often to their good judgment, and it is indeed gratifying to see the good effect produced.

There are many other lessons that our laying competitions have taught us, but sufficient have been given to vindicate their claim as an educative force in the development of the poultry industry in New Zealand.



POST-MORTEM EXAMINATIONS.

We have made arrangements by which post-mortem examinations of poultry and game can be effected for our readers upon the following conditions :

1. *The specimen is to be forwarded postage or carriage paid and securely packed to "Biologist," 297, Trinity-road, Wandsworth Common, London, S.W.*
2. *The fee of 2s. 6d. (stamps will not be accepted) must be remitted with each specimen and a letter giving particulars of feeding and housing, or any symptoms which were observed before death.*
3. *Birds should on no account be addressed to the office of the paper. If forwarded there they will be returned to the sender.*

It is recommended that specimens be dispatched by parcels post, where practicable, and as soon after death as possible. A reply will be received by letter, defining the disease, its cause, treatment, and prevention.

The Abuse of the Judging-stick.

The time has surely arrived when some limit should be placed upon the indiscriminate and often totally unnecessary use of the judging-stick by visitors to poultry shows. The right of entry to an exhibition has apparently by long custom come to carry with it the right to wield a weapon which, in size and shape, may be anything from a short blunt wand to a small fishing-rod with a point not less sharp than that of a large knitting needle. Such things are a danger even in the hands of experienced fanciers. One has only to look round a show to notice how roughly the judging-stick is applied to exhibits, especially when the bird inspected is not the property of the examiner. And most of us are familiar with the type of fancier—he is not always a novice either—who, armed with catalogue and stick, proceeds to prod up every individual bird in the show, pausing now and then, when he sees a chance of an audience, to point out the differences between a Barred Rock and a Sebright Bantam, or to assert that those who made the awards must one and all be afflicted with colour-blindness. And what of the birds that endure two or three days of discomfort in the

pens? Is it any wonder they are often returned home off colour, ill, and sometimes dead in their hampers? For injuries inflicted with judging-sticks are of more common occurrence than is generally realised, and frequently terminate fatally. A very recent instance we have in mind. The bird, a prize-winner—and it is remarkable how often the victims are prize-winners—was returned from a Northern show. It was dead when received by the owner, and post-mortem examination discovered a round, punctured wound penetrating both skin and intestine, and causing a fatal peritonitis. This wound had been dealt in the show-pen thoughtlessly, or perhaps maliciously, and it looked as if a sharp pointed judging-stick had been the weapon. Knowing of other instances of the same kind, we are prompted to ask : Can nothing be done to curtail the abuse of the judging-stick, or at least to ensure that none but a safe pattern tipped with a ball or button be authorised under Poultry Club rules? Moreover, it would abate the nuisance, and at the same time be a useful supplement to the takings of a show, if a small fee—say, 3d. a day—were imposed on all visitors who desired to use judging-sticks, though we almost go to the length of saying that they are only necessary to the judges. A regulation relating to the extra fee could easily be added by the Poultry Club to those already enforced on societies holding shows under their rules. No real fancier who desired to exercise the right would be likely to object to pay a few pence for a privilege which the careless and ignorant would prefer to decline rather than meet the expense attached to it. Something, however, ought to be done to protect the property of exhibitors against wanton damage at the hands of the judging-stick fiend, for injuries to exhibits are becoming of late much too frequent.

Death in the Pot.

The axiom that there is safety in numbers is not a self-evident truth when applied to the keeping of poultry. Unless his stock are sub-divided into smaller communities, each section being housed, fed, and otherwise provided for on the principle of an isolated colony, he who farms poultry on a large scale will, as compared with the amateur suburban fancier, find his losses from

disease and misadventure considerably greater than any mere proportionate estimate based upon the difference in numbers of their respective stocks. Whether one weighs the risks that are connected with infected soil, deficient ventilation, or tainted food, it is obvious that the larger the flock the greater the danger. For poultry are gregarious in their habits. However unlimited may be the land they roam over, feeding time will find them concentrated on the same patch of ground day after day. It matters not how spacious may be the barn in which they are housed, at nightfall the highest perches will be overcrowded; and with ever so much floor space available in an open-fronted shed, chickens or ducklings will prefer towards evening to smother each other in one corner rather than use any of the other three in comfort and security. But it is from the effects of ptomaine poisoning arising from tainted or fermented food that large establishments frequently suffer the most, because the feeding of large numbers entails the mixing of a quantity of food in a single vessel which has, perhaps, been allowed through carelessness to become unclean. Food mixed overnight in a warm, summer temperature, especially if it contains meat or meat-meal, is always a danger to stock, and too much care cannot be taken to ensure that the tub or cooker in which it is prepared is cleansed daily. When the food itself is bad, of course the evil effects will continue only so long as it is given, and will cease on the supply being changed. Ptomaine poisoning in poultry can hardly be mistaken for other ailments. It is sudden in its onset, of short duration, and, when fatal, the end comes rapidly. The symptoms may first appear immediately after feeding tainted food or about twenty hours after its ingestion. The difference in this interval is held to depend on whether the *toxins* (as the poisonous products of the bacteria are termed) or the *bacteria* themselves were partaken of, the former being more virulent and deadly. There are signs of indigestion, jerking of the head, and a twisting neck, sometimes gaping. These are followed by marked exhaustion, staggering and inability to stand, drowsiness, coma, and finally always convulsive movements of legs, wings, and spine. Death takes place generally within an hour or so of the first signs of illness.

TURKEYS AND DISEASE.

By H. B. GREENE, M.R.C.S.

THERE is a popular idea, so widely prevalent that it is almost worthy to be designated a tradition, that turkeys are endowed with constitutions of such delicacy as to make their successful rearing a question of uncertainty and doubtful profit. One has not to seek far to discover the source from which this impression emanated. All the early writers on poultry culture, at least those who wrote in our own tongue, invariably accompanied their remarks on turkey-rearing with depressing warnings of difficulties to be expected on

account of this inherent delicacy. But if the reasons that prompted their counsel are closely looked into they will be found to have been conceived because of disasters recorded by breeders who neither understood nor studied the wants and habits of the birds rather than because of any constitutional peculiarity impossible to conquer with increased experience. And so it is to some extent in our own day, although the growth of knowledge and the adoption of a more rational method of treatment on lines more strictly in accordance with the natural habits of the species have done much to dispel the notion that turkeys cannot be made, on the score of their health, to bring as much grist to the mill as other varieties of poultry.

It cannot be denied that turkeys in the interval of their lives between hatching and attaining adult age are often a source of anxiety and disappointment. It is equally certain that they pass through critical stages in their development, at which times improper food and surroundings will of a surety induce more than one form of fatal disease. But it is no less clear that if proper steps are taken to understand the nature of their physical peculiarities and to provide them with an environment as far as possible like that which they enjoy in the wild state much will have been done to protect them from disease and enable them, when it comes, to repel it successfully. In this connection, therefore, it will not be inappropriate to turn aside for a moment in order to ascertain if history throws any light upon the conditions and circumstances under which the species came to be domesticated.

The wild turkey is undoubtedly of American origin, and still finds a home in some wooded parts of North America, where, however, it is rapidly becoming scarce. How long it was there before the new continent was discovered by the Spaniards would be impossible to say, but its domestication by man had been already effected before their arrival. By them it was probably first introduced to Europe, for the bird mentioned by early Greek writers as "*meleagris*" can scarcely have been the turkey. In England we first read of it in the reign of Henry VII., while its arrival in France does not appear to have been chronicled until the time of Charles IX., when it was one of the luxuries at that monarch's wedding banquet. Its actual importation to England was by way of the West Indies, but the turkey is an inhabitant of temperate climes. It will thrive fairly well in India and Africa, but it is not adapted to tropical countries so well as to more northern latitudes; and, notwithstanding the name it bears, the bird has no historical relation to the countries of South-Eastern Europe.

Assuming, then, the woods of North America to be the natural home of the wild turkey, a comparison of its habits of life in such surroundings with the treatment to which it is subjected under domestication will help to suggest some causes of failure in rearing other than that of inherent weakness of constitution. In unrestricted life it is accustomed to a free range, and exercises powers of flight by no means inconsiderable. Plainly, it is ill-adapted to confined runs and limited ground space

As a perching bird, it will from the age of seven or eight weeks seek the high branches of trees as a roosting-place. This sylvan habit, besides providing shelter from cold winds and rain, protects it from the evil consequences of resting on wet ground. It is well known that stock birds in domestication will thrive much better when they have access to trees, while damp ground and exposure to rain are predisposing causes of many of the ailments to which turkeys are particularly liable.

Then, again, in the matter of food, that of the wild turkey includes abundant supplies of insects, fresh green food, leaves, berries, seeds and acorns, but especially must the supply of nitrogenous food be liberal. How often is this forgotten when the birds are kept in the poultry-yard, or on a patch of poor grass land, on which every insect has long before been eaten up! The study of the turkey in natural life, therefore, teaches us that the chief conditions tending to its health and vigour are shelter, dry footing, and protection from rain. Moreover, we learn that its natural diet is rich and varied both in regard to animal and vegetable components; and, lastly, the free, open life in the wild state suggests that when kept in domestication turkeys will soon suffer under the opposite conditions of insufficient ventilation.

The question of the character of the land upon which rearing operations are conducted has always been held to be one of importance, but it is not unlikely that too great stress has been laid upon the necessity for a light, sandy soil, and those poultry-keepers who have not such land are often deterred on that account from entering the ranks of the turkey industry. A sandy soil, of course, ensures dryness, a distinct advantage, but one that is discounted by the poor quality of grass and the consequent scarcity of insect life which such land carries with it. Excellent birds can and have been reared on even heavy clay soils, but a good barn or shed is essential so that a shelter on rainy days, or when the land is saturated, is always available. Our Eastern Counties, justly celebrated for their production of turkeys, provide a typical soil for successful rearing. Without being too heavy, it is rich enough, and yet such land can by no means be called light and sandy. What must be most closely attended to concerns not so much the quality of the land as the knowledge that a wet range and exposure to rain are the two factors that cause most havoc among turkey poults and chicks. They are the predisposing causes of pneumonia, and there is no other disease of turkeys, in this country, at least, to which more losses in young stock can be traced. Another cause of this scourge will be found to lie in the custom of shutting up a flock of turkey chicks in an ill-ventilated, close house during the night, and in the early morning, with heavy dew or rain still on the grass, releasing them to run on it. The losses by this carelessness are very considerable, and the deaths may go on, by twos and threes, each day until the cause is discovered. Pneumonia is not the only form of lung inflammation to be traced to the effects of exposure to wet. Bronchitis and pleurisy are diseases fairly common among turkeys,

though not nearly so deadly or difficult to deal with. Every breeder also has at one time or another had birds suffering from rheumatic cramp. Here, again, the same cause is at work, and whatever remedies are applied, the treatment must include warm and dry quarters. There is another disease in which cramp and helplessness of the legs is a prominent symptom, and which must not be confounded with rheumatic cramp. Rickets is made to rickets, a malady dependent upon improper feeding, which occurs when the chicks are a couple of months old, and, of course, there are many diseases of digestion, such as gastro-enteritis and dysentery, that are also the direct result of erratic systems of feeding.

Turkeys also are as prone to contract parasitic diseases as other poultry, and gapeworms as well as certain species of worms that invade the intestinal tract are at times a great nuisance. Turkeys reared on land by themselves are much less liable to pick up these pests than when farmed with other poultry or in woods where pheasants abound. There are other reasons also for keeping the birds quite separate from ducks and fowls.

The parasitic disease, well known in America but fortunately rarer over here, termed "Blackhead" was in a recent number of this paper so ably dealt with by Professor F. V. Theobald that no description is required in this article. The precise character of the parasite that causes it is still in doubt, and more information regarding outbreaks must be collected. Turkey-breeders who may at any future time suspect their stock to be suffering from symptoms resembling those of "Blackhead" will both assist investigation and at the same time benefit themselves if they will bring the epidemic to the notice of one of the many authorities who are now only too willing to help them.

Turkey-breeders are familiar with the phenomenon known as "shooting the red" or "throwing the red." It consists of the changes by which the membranes about the head and neck of the bird rapidly develop and become turgid with blood. These membranes in turkeys are analogous to the combs and wattles of fowls, and their development at the age of two months or thereabouts merely means that the birds are attaining sexual maturity. The exposure of so large an area of thin uncovered skin suddenly charged with blood, together with other disturbances in the circulation going on elsewhere at the same time, render the young turkeys especially prone to chill. In fact, it marks a crisis, and the event is justifiably dreaded by breeders. This is the time, above all, when the birds must be kept warm and sheltered, and if the weather demands it they will be better confined to a shed until the process is complete. If these precautions are taken, and an extra allowance of meat, onions, and oatmeal given, there is no need to look upon the event except in the light of a natural development of secondary sexual characters demanding a little special care and attention. This large surface of congested membranous skin renders turkeys also at all times more susceptible to contagious skin ailments than other poultry.

THE POULTRY-KEEPER'S OTHER INTERESTS.

By "HOME COUNTIES."

Author of "The Townsman's Farm," "Poultry Farming: Some Facts and Some Conclusions,"
"The Case for the Goat," "Country Cottages," &c."

"Poultry should be only one part of the stock."

—The Secretary of the N.P.O.S. in the "Cyclopædia of Modern Agriculture."

REINFORCED CONCRETE POULTRY-HOUSES.

The great things in poultry-houses are two—first, ease with which they may be kept quite clean; second, inexpensiveness, which means building in such a way that they will last a long time. I wonder who will be the first man to build a reinforced concrete poultry-house. I should not wonder if the thing has been done already in America. Reinforced concrete is, of course, concrete applied to a framework of iron. Thus there are not only reinforced concrete bridges, but reinforced concrete telegraph poles, sewer pipes, pontoons, and canal boats. The great Union stockyards at Chicago are now being rebuilt in reinforced concrete instead of wood. The advantages of a concrete hen-house would be that it would be very easily kept clean—it would have no nooks and crannies—and that it would be everlasting. The disadvantage would be in weight. But I do not know that it need be so very heavy. It could be constructed of a light iron rod framework and wire netting, which would receive the concrete. I think a reinforced con-

needs neither preservative nor paint, and that will be as good as new a century hence!

MOTORS FOR POULTRY-KEEPERS.

The other day I was interested to see a tri-car pass piled high with poultry crates. I think it was a man come to buy birds at the farm near by. Several poultry-keepers I know have set up cars of late of more or less ancient make. I guess they were bought at a very low figure. But more poultry-keepers must be wondering if a little car would not pay them better than a trap. I know a big Argyll which may often be seen bringing home from the station baskets of birds which have been to the shows. But I think it is not hens that bought or keep up that car. How about a small car, though? Last month I was told of a man who got a rattling little De Dion—needless to say that I don't mean a De Dion which rattles—for £50! I have never heard of another one going at that price, though I met with a dealer who had picked one up at what he reckoned a cheap figure, £70—or £75 was it?

THE CASE FOR ONE.

The case for a small car can be made to look rather a strong one. There are any number on sale second-hand. Every year they get easier to manage. They don't eat oats or kick a stable to bits when they're not wanted, and if there's a garage owned by a man with a conscience not too far away, and the owner of the car has any mechanical bent at all, the expense of maintenance should not be large. And think of the chances a car would give of seeing other people's poultry and attending shows cheaply! Briefly, one can easily see that it would not be a difficult matter for many a poultry-keeper to convince his wife that he would be doing a fine thing to go in for a small car.

THE CASE AGAINST.

Let me furnish her with a little ammunition to pepper him with! Here are the *ipsissima verba* of a letter which a motorist, who is, I think, a director of a motor company, lately sent to a man in the country who had got the idea that he could pick up a decent little car to begin at a low figure and save himself money:

Now I can give you the benefit of my experience and speak with some knowledge, I hope. I know the type of small car you are thinking of inside out and upside down, and my advice in a nutshell is, Don't! You have no conception of the amount of care and attention even the running of a small car takes, and to attempt to tackle it without any mechanical tastes would be throwing money away. Cars do not run themselves in the press-the-button style by any means, and I think you would be very unwise to start a car at all until you can afford a man to (amongst other things) look after



A TABLE MADE OF CONCRETE.

By courtesy of Concrete.

crete poultry-house could be built which could easily be drawn on to rollers or a wheeled framework for removal. I should like to see an appliance maker try his hand after going into counsel with the Expanded Metal Company or any other good maker of material for reinforced concrete work. Look at these photographs of a concrete table and cupboard, by courtesy of *Concrete*, where all sorts of recent developments in the use of concrete are recorded, and you get a fair notion of how to set about the business. Think of a poultry-house that

it; and even then you would be swindled right and left through lack of knowledge.

MOTOR-CYCLES.

But how about motor-cycles? The correspondent went on:

If you feel the want of some form of motor for getting about in your district buy a decent second-hand motor-bicycle for £10 or £12, and get your petrol experience on that before you dream of buying a car. You have no idea of the multitude of little things that could cause your engine to stop suddenly in the road, and unless you have a very good smattering of petrol knowledge you would be utterly at sea. To run a car oneself at a small cost it is absolutely essential to have some mechanical knowledge of and sympathy with the internals of the car. A small motor-cycle would answer your running about purposes admirably. You don't have to invest much. The running costs are very small, perhaps 2s. 6d. per one hundred miles, and if

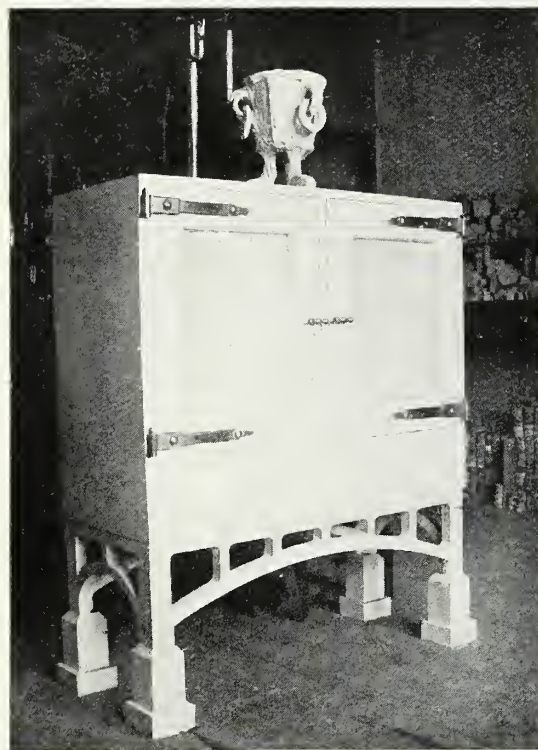
friend this with my compliments, and I speak from seven years' intimate knowledge of many cars.

All I need add is that, in the case in question, the advice was accepted. The buying of a small car is taken to avizandum, as my fellow-Scots readers say.

RECEIPTS FROM THE POULTRY-KEEPER'S GARDEN.

Every poultry-keeper grows something besides poultry. It is always very difficult to know, however, what the produce of a small man's garden is worth. A few days ago Mr. Joseph Fels, who has such an interesting colony of small holders down at Maryland, in Essex, showed me a letter from a steady worker for social betterment, Mr. John Richardson, M.Inst.C.E., in which the following paragraph appears:

What I have been able to do is only upon a very small scale. The cultivated portion of my garden,



A SAMPLE OF CONCRETE FURNITURE.

By courtesy of Concrete.

anything goes wrong you can, as a last resource, pedal home.

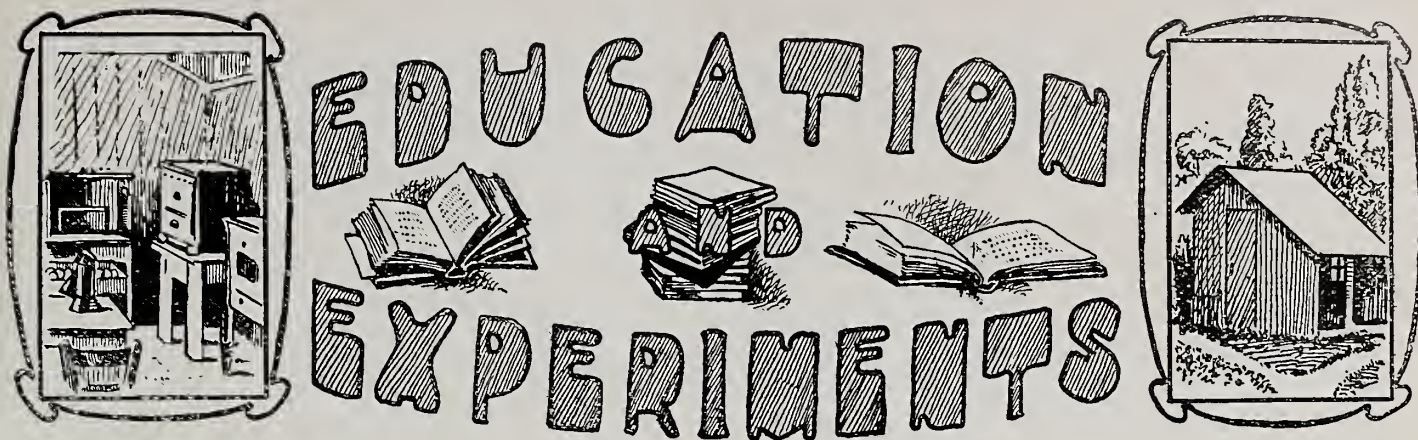
TROUBLES WITH A CAR.

Then the correspondent returns to the question of a car:

With a car you would have to get expert help. Then again a presentable, simple, sound two-seater with wind screen for £50 wants finding. Most cars at that price are getting near their last legs unless they have been exceedingly well looked after and overhauled, and probably after a short period of further running you are in for a peck of trouble and an expensive overhaul. I don't know who your friend is who advised you to buy a car of above type, but he simply does not know what he is talking about in your case. Any infant can drive and steer a small car. That only represents about 10 per cent. of what is involved, even including "keeping your head" in contingencies. The remaining 90 per cent. is in keeping the car in decent running fettle. You can tell your

including the greenhouse and paths and toolhouse, is only 480 square yards in extent. But upon the walls and trellis which separate the vegetable garden from the small lawn I have 15 espalier apple and pear trees, and 13 pyramid ditto in the open, most of them bearing regularly good crops. From these trees and four vines under glass I get, according to the season, £10 to £15 worth of fruit at retail price; celery and green crops, and garden herbs, salads, &c., are well worth £2, and cucumber and mushrooms another £3, say, on an average £18, or at the rate of £180 an acre—this is well within the mark—and coke and manure, $\frac{1}{2}$ ton of former and 2 tons of latter, for the hot bed are all the outgoings except the labour, which I do in my spare time.

I should very much like to see some poultry-keepers' garden balance-sheets. Most poultry-keepers have facilities a consulting engineer does not possess. For one thing, they do not usually need to have to buy two tons of manure.



Advancing Poultry Education in the Midlands.

Following on the efforts of Captain F. Peirson-Webber, we are glad to be able to report that the lectures and demonstrations given by him are bearing fruit in the districts traversed. At the Warwickshire, Northamptonshire, and the Rugby and Dunchurch Agricultural Shows the demonstration tents were well filled, and great interest was evinced in the work. That improved methods are being followed as a result of the work of the expert in agriculture to the Warwickshire and Northamptonshire County Councils is shown by the particulars to hand. In one instance 1,600 eggs have been gathered from a pen of eight birds, and 1,732 eggs from ten laying hens. Details of many good averages in larger flocks have also been received. We wish Captain Peirson-Webber every success in the labour he has undertaken.

An Irish Premium Poultry Station.

We give herewith a photograph of Miss Tormey's Premium Station at Crookedwood, Mullingar, where the breeds kept are White Wyandottes, Aylesbury Ducks, and Embden Geese. This station, which is under the

auspices of the Westmeath County Council, is in every sense for utility purposes, the birds having free range overlooking the far-famed Derryvaragh, dear to the heart of anglers, and firing the artist to paint nature in its inimitable glory. During the past year this station has been a great boon to the district and a pleasure to the industrious owner. As an all-white station it has special attractions, increased by its beautiful surroundings. Miss Hogan, the County Instructress, is more than satisfied with its results, and the owner deserves our congratulations upon it and its influence.

Stores Agricultural College, Connecticut.

Poultry has continued to be an important feature since Professor W. R. Graham left for Hampton and Mr. F. H. Stoneburn took his position. An exchange states that it is proposed to erect a new poultry plant within the next year at an expenditure of \$30,000. Evidently the value of the poultry industry is realised in America.

Cornell University.

Mr. A. T. Moir has been appointed Assistant Professor in Poultry Husbandry.

Colour Transmission to the Embryo.

That food has an influence upon the colour of the fat and skin of a bird so fed is well known to practical poultry-breeders, but that the chicks hatched from eggs laid by such birds are affected has not been accepted. *Science* records some experiments by S. H. and Susanna P. Gage as follows:

The specific fat stain, Sudan III., colours the fat laid down in the living hen and in the fatty portions of the yolk while the feeding experiments are in progress, and thus serves to give the exact data concerning the time and amount of deposit.

The eggs so coloured hatch, and the chick utilises the yolk as food produces fat in its own body coloured as in the adult, showing in the most striking manner the transmission of a specific and unusual or foreign substance from the mother to the egg, and from the egg to the offspring, and thereby marking the transmission of the actual substance of the egg, and indirectly of the mother, to the offspring.



[Copyright.]

SLOW BUT SURE ADVANCE.

By AN IRISH INSTRUCTRESS.

TO imagine that doing one's duty can be a pleasure is, I believe, considered quite an old-fashioned fallacy nowadays, but the itinerant instructor in Ireland who is not sensible enough to make duty a pleasure may bid a permanent adieu to that elusive goddess so long as his or her lines are cast in the dark places of rural Ireland. For the path—especially that of the poultry instructor, or “the hen-woman,” or “na bahn na carka” (phonetic Gaelic), as we are colloquially termed—is beset with many thorns and brambles, and few are the oases in her wilderness of work and worry. In your report of one of America's big agricultural colleges, some time ago, reference was made to the disproportionate amount of correspondence, interviews, demonstrations, &c., involved in the administration of the poultry section of the college, compared with the other branches, and thereby may be drawn “flattering unction to our souls,” for, in addition to our nominal duties, there is a never-ending stream of incidental work which absorbs every faculty, mental and physical, and which reaches the undercurrents of prejudice and ignorance far more surely than our work as detailed in the Department of Agriculture's scheme of instruction. And yet I sometimes think that any little complacency, or gratification, that comes our way is rather the glow of perhaps unconscious conceit than that of conscious virtue, by which latter I mean real, *bonâ-fide*, tangible improvement as the result of our efforts.

It would doubtless be much more interesting, as it would certainly be more invigorating, for your readers to get a glowing sketch of what has been done in more progressive and more prosperous counties than mine, but existing circumstances do not justify glamour. Things have improved undeniably: there is less disease in fowl; eggs are better and far more plentiful; stocks of poultry are infinitely more promising, and much has been done. But in a country like this, where the holding of an average farmer is between five and fifteen acres of land, and where every penny counts in such households we may call it ignorance, or apathy, or prejudice, but improvement in methods, &c., must necessarily be slow. Some even at this hour of the day have not recovered from the distress of what they consider an iniquitous imposition—“the penny in the pound”—levied in those counties which adopted all the improvement schemes of the Department of Agriculture—i.e., instruction and subsidies given in agriculture, horticulture, dairying, domestic economy, poultry-keeping, and all home industries. When one considers that to the generality of ratepayers here this imposition amounts to only about sixpence or a shilling per annum, and that the benefits of each and all the above-mentioned schemes are available for this small sum, the ironical designation of Ireland as the “distressful country” is not inappropriate, I am afraid. Bearing upon the point of expenditure for tech-

nical instruction, an interesting fact was brought to light at the last Agricultural Congress held in Dublin, when Professor Campbell stated that the increase in the value of our export of eggs from Ireland since the inauguration of the Department of Agriculture in 1900 has exceeded the total outlay in connection with all the schemes of instruction. To those who read, mark, and digest this and similar proofs of the big strides made in the profits from poultry-keeping in Ireland, the work of the instructors is not “all nonsense” or futile, and the sun of prosperity has undoubtedly *dawned*; but the wide range of improvement still possible, and easily possible too, produces intermittent fits of hopelessness, and makes the clouds loom very large behind their silver lining, when one has the interest of poultry-keeping as a national industry seriously at heart.

POULTRY EDUCATION IN RUSSIA.

DURING recent years the Russian Ministry of Agriculture has given great encouragement to the poultry industry by dissemination of information, by introduction of better classes of fowls, and by helping forward the arrangements for shipment of produce. The need for advanced instruction has become pressing, for the training of teachers and of managers of poultry plants. To this end courses have been arranged, commencing in November, by the St. Petersburg Branch of the Russian Poultry Association, under the auspices of the Department of Agriculture. Particulars of the courses are given below, and we are pleased to note that the fee for the courses of instruction is well within the reach of all. The syllabus includes practice in all branches of poultry-keeping, and the lectures given cover the greater part of the entire field of theoretical aviculture.

1. The object of the courses is to give systematic instruction in the poultry industry as a separate and accessory part of animal husbandry. Rabbit-keeping as an industry enters also in the programme of the courses.

2. The duration of the courses is: The theoretical part, from the month of November to March inclusive; the practical, from March to November (twelve months in all).

3. Students intending to take the whole course must have a certificate of at least high-school education. This is not required from students who do not intend to sit for the examination for the diploma.

4. Students having attended the whole course, the theoretical as well as the practical, and having passed the corresponding examination, receive a certificate.

5. Fees for the full course are: For the theory (lectures), 25 roubles; for the summer practice, 25 roubles; payable strictly in advance.

6. Those desiring to attend only a few of the lectures pay five roubles for each part of the course.

7. The lectures will be held in the evening.

THE CLOCK HOUSE FARM.

TWO miles from Byfleet Station, and about equidistant from Byfleet and Weybridge, stands the Clock House, the fine residence of Mr. and Mrs. Trevor-Williams. To this house are attached about 190 acres of land, four of which are devoted to poultry and the rest to general farming, in which the breeding of pure-bred shorthorns is a conspicuous feature. The shorthorns are Mr. Trevor-Williams's concern, and his successes at recent agricultural shows are testimony of what he has made of it during the half-dozen years or so that he has been at the Clock House. The poultry-farm is owned and run by Mrs. Trevor-Williams, with the assistance of an experienced manager, and is entirely independent of the other, except that when the fields adjacent to the poultry area are not wanted for another purpose Mrs. Trevor-Williams's birds are allowed their liberty thereon. The advantage of this arrangement is at once apparent, as any small holder who is happy enough to possess a neighbour willing to let his stubbles be used for the same purpose can testify.

The history of the Clock House Poultry-Farm may be told very briefly. It was started by Mrs. Trevor-Williams four years ago for the purpose of producing utility poultry and eggs. Its main purpose may be said still to be utility. But little more than a year ago the desire to better her stock induced Mrs. Trevor-Williams to turn her attention to the fancy side, and to obtain a few good birds from good breeders and a few sittings of eggs. The result of her operations in this department exceeded her expectations. In regard to exhibitions, she was successful in the novice classes almost from the first; and more recently one or two striking victories with White Orpingtons have brought her birds to the front, or somewhere near it, with a rush. It is early yet to prophesy concerning this latest development of the Clock House Poultry Farm, but the start she has made in the fancy is certainly indicative of greater things to come. There is, however, little chance that she will devote herself wholly to this branch; it is, rather, her intention to use it as a means of assisting financially the utility farming with which she began. The two branches will, of course, be kept distinct; apart from that, the only difference that will take place will be a slight reduction in the number of breeds kept. At present the stock consists of White, Black, and Buff Orpingtons, White and Silver Wyandottes, Barred Rocks, Faverolles, and Black Leghorns. The Orping-

tons and Wyandottes will probably remain as fancy specialities, their economic qualities not being lost sight of, and the value of the Black Leghorns as egg-producers may retain them on the utility side. The others may possibly be discarded.

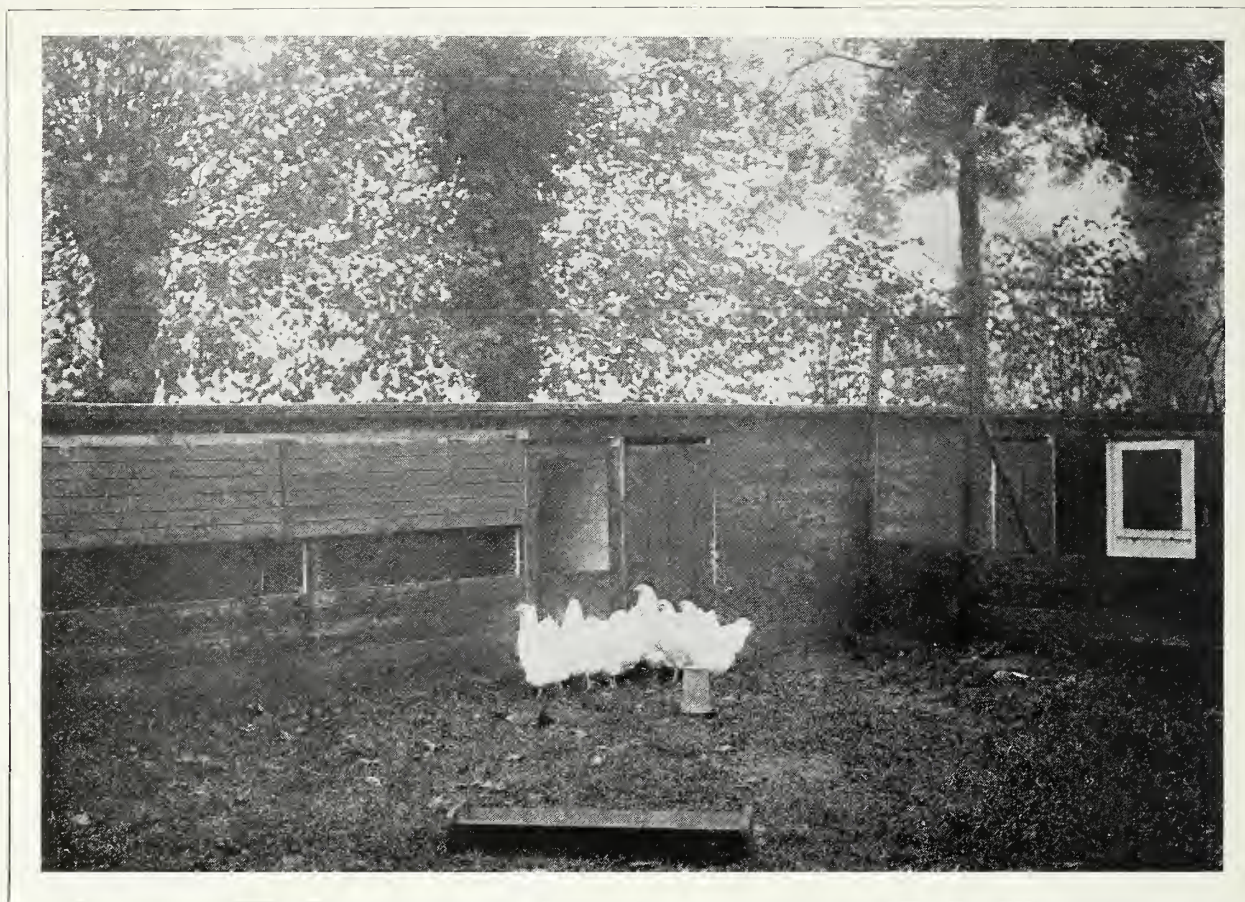


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A "CLOCK HOUSE" WYANDOTTE.

Meanwhile we have to consider the facilities for successful breeding, from either the utility or the fancy standpoint, as they exist at the Clock House Poultry-Farm. The farm itself lies a few

✧
A PEN
OF
WHITE
ORPINGTONS.



[Copyright.]



✧
THE
BREEDING
PENS

[Copyright.]

minutes' walk beyond the Clock House, as one travels from Byfleet Station. A good road takes one to the manager's cottage, a red-brick building standing a little way back; the breeding-pens are close by, to the left and the rear of the cottage. Altogether there are twenty-six houses and runs, not all of which, however, were in use at the time of our visit. It is the practice at the Clock House Farm to take more than ordinary precautions to avoid the risk of tainted ground, and there is ample opportunity for changing the pens about. The houses used in winter are so arranged that their fronts face the south, while their backs are protected from the north winds by a belt of high trees. They are home-made structures of the open-fronted type, with the roosting-house and scratching-shed combined, each being provided with a shutter that can be let down from the roof so as to protect the front of the house in severe weather. The principal characteristic that struck us about these

the house there are a number of small vents which, while perfectly protected from the weather, admit the passage of numerous currents of fresh air. The roofs are uniformly one and a quarter inch thickness, and the litter used is peat dust. These houses are tarred, with tarred felt on the roofs, and that is the protection against weather and insects that is given in most of the houses on this establishment. On the south side of the pens, however, there is a line of a dozen cockerel houses, as shown in our illustration, which are the work of a well-known appliance maker in the South of England, and are creosoted according to a method of his own.

The soil on the Clock House Poultry-Farm is light and inclined to sandiness, so that it drains itself fairly easily even in such disastrously moist weather as we experienced at the end of October. It has been found necessary, however, to drain some of the runs, and it is proposed to do the rest, so that nothing may be left undone



COCKEREL HOUSES AT CLOCK HOUSE.

[Copyright.]

houses was the roominess of the scratching-shed, in proportion to the size of the roosting-place, though the latter is anything but small. Otherwise they do not call for particular remark, except, perhaps, in regard to their ventilation, which is ingeniously contrived by the inside of the roof being grooved, so that on each side of

that tends to the welfare of the stock. The runs, which are entirely grass, are divided from each other by the usual wire netting partitions, with a fairly high skirting-board at the base of each partition to keep out the draughts and prevent the male bird of one pen from insulting his next-door neighbour. In most of the runs a few apple-

TRADE SUPPLEMENT

trees have been planted, and these in a year or two will provide the shade that makes the ideal run an exceedingly pleasant place in hot weather. The place itself is, one must remember, nearly as young as the apple-trees, and it would be unreasonable to expect more than what human forethought and choice of natural advantages has already provided.



AN APRIL-HATCHED ORPINGTON PULLET.

[Copyright

The remainder of the plant—or, rather, of the plant at present in use—consists of an exhibition shed, a food room, a washing house, an incubator house, and a shed with one side open, round which are ranged coops containing birds destined for the market and ultimately the dinner-table. Other table-birds, one may note in passing, are penned

apart from the rest of the stock—a varied assortment of them in an outlying enclosure. The market for these birds and for table-eggs is chiefly local at present; we understand that it is entirely satisfactory. The exhibition shed is small, but beautifully fitted, the comfortable-sized cages, with their clean litter of chaff, providing an ideal temporary residence for birds intended for show. We were shown a contingent of White Orpingtons, White Wyandottes, Silver Wyandottes, and a Barred Rock or two, which were going to Weybridge the same evening, and an excellent lot they looked, the Whites especially showing a crystal-like purity of colour—in the case of a fine Orpington pullet in particular—that it was a delight to see. There are three incubators kept, of two of the best-known makes; and outside, awaiting the coming of the new year, when hatching is commenced, were five foster-mothers, again of familiar manufacture. Hatching, we may add, is carried on from January to April, and for a few weeks during September for spring birds.

In mating, one cock is usually run with ten hens. The birds are fed twice a day, biscuit-meal forming the morning feed and oats and barley being given alternately for the evening meal. The biscuit-meal is fed hot in winter, the object being, of course, to stimulate egg-production. The dry-food system of feeding chicks is not countenanced; soft food is given to them from the very beginning. The farm, we should mention, does a fairly good trade in day-old chicks. It only remains for us to summarise the character of the place, as evidenced by what we have attempted to describe. One may say, then, that it is, first and foremost, a utility farm, run on utility lines and, despite the recent development in the fancy side, governed by utility considerations; and the principles kept in mind are those which every utility breeder has had, or ought to have had, hammered into him by this time. The distinction of the Clock House Farm is that these principles are observed with a literalness and carried out with a thoroughness that are far above the average. We have spoken, in regard to cleanliness, of the care taken to prevent the ground becoming tainted; a similar carefulness is shown in the case of the houses, which are cleaned out every day, and in the scrupulous cleanliness maintained in every department of the birds' upkeep. The stock, though considerable in numbers, is kept down to the manageable point; and the result is a uniformly healthy lot of fowls, classed according to their merits, but all showing signs of the vitality essential to their future prosperity. It is, as we have said, a young concern, but it is one whose growth one can watch with interest and a good share of confidence.

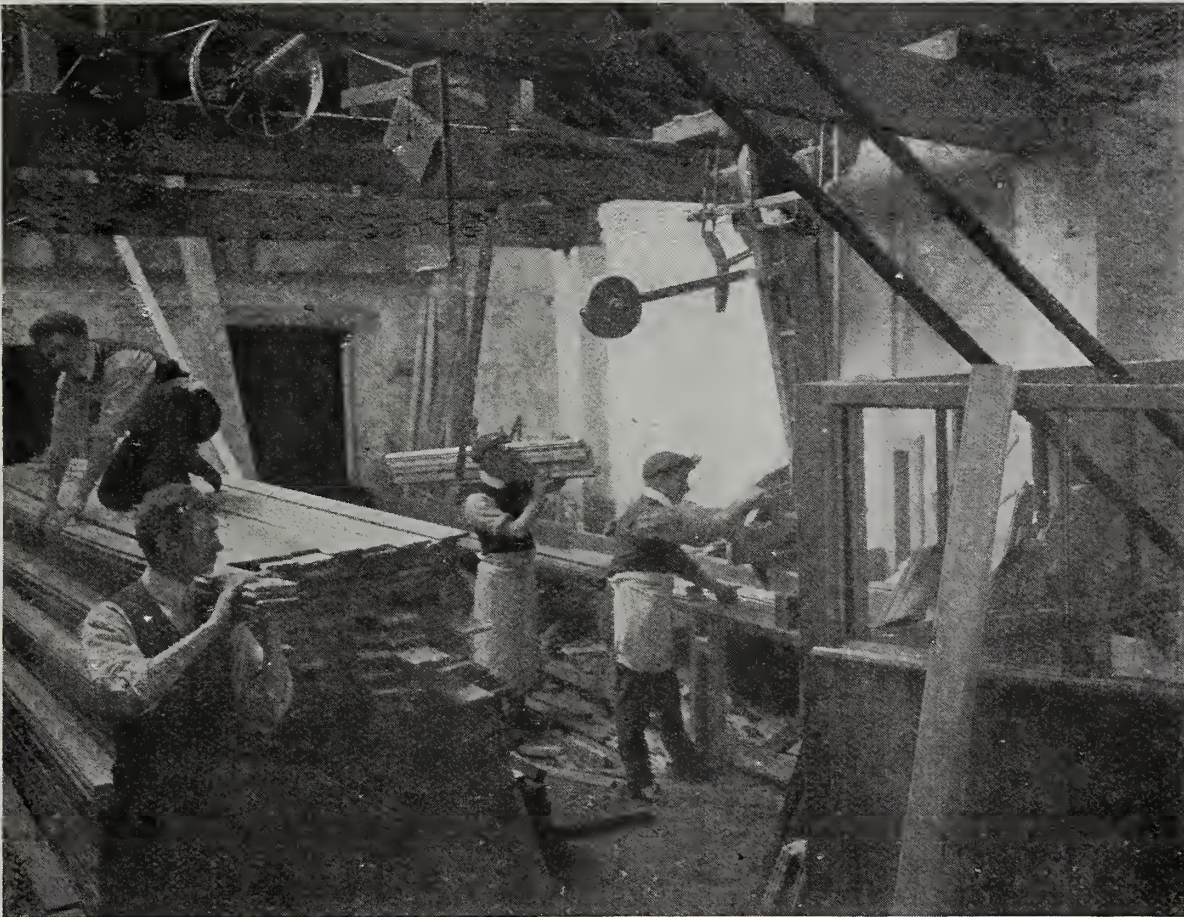
THE MIDLAND WORKS.

A THREE-AND-A-HALF MILE ride on a threepenny 'bus from New Street, Birmingham, takes one to Harborne, where the Midland Works are located. It is not altogether a pleasant ride, but considering that the 'buses pass the Works, and run every eight minutes, it is a most convenient method of travel for the visitor. The monotony of our journey was relieved somewhat, for, as soon as we had asked the conductor to

whether this was an advertising scheme on the part of Mr. Phipps, or whether the information was given gratuitously from an unauthorised source. At any rate, it served its purpose. The whole secret of successful advertising is to make the public talk about the goods offered on the market.

THE SAW-MILL.

The offices are situated between the two large



A CORNER OF THE SAW-MILL.

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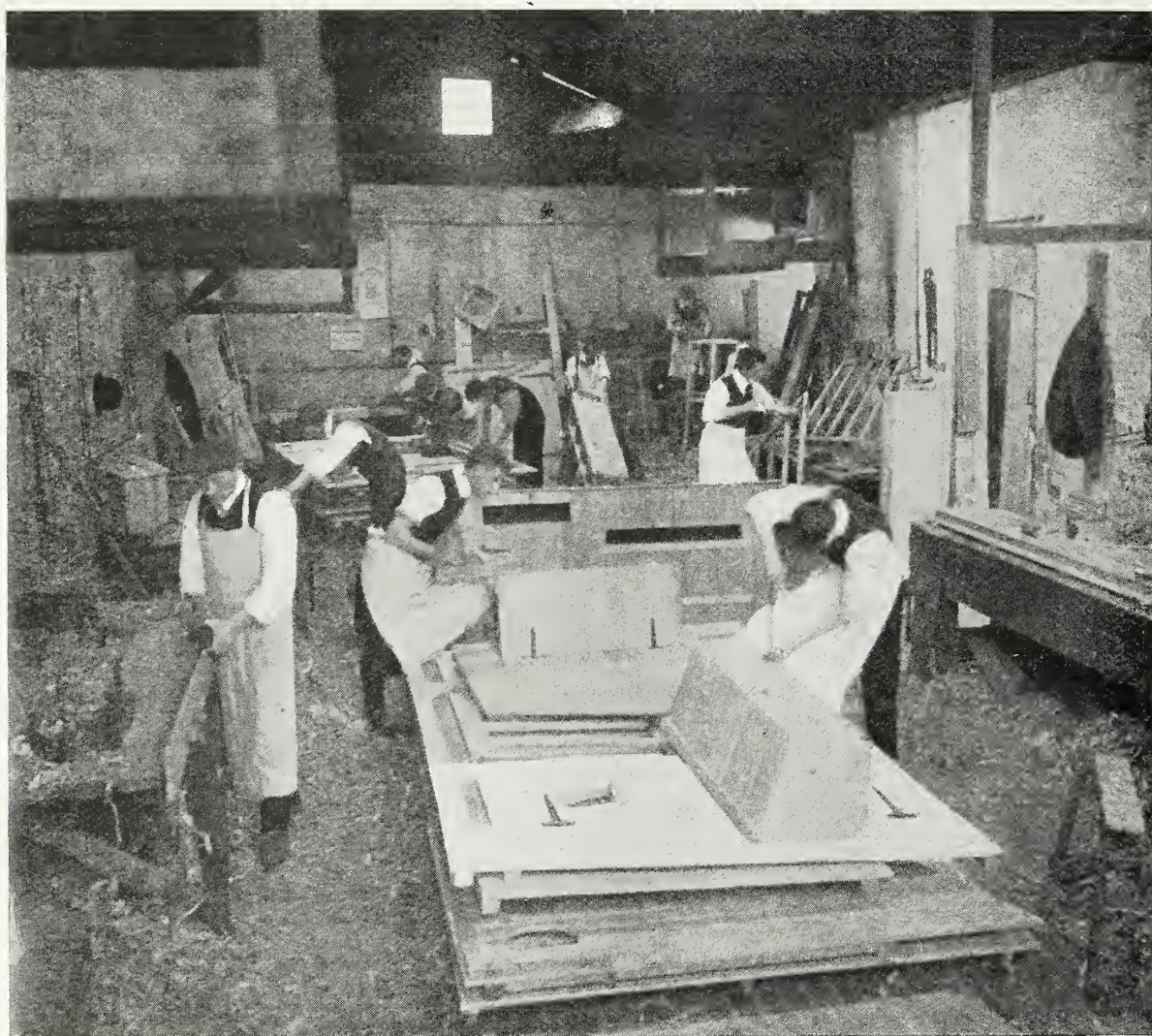
put us down at Mr. Phipps's office, he waxed eloquent on the subject of the incubator works ; but having the idea that the proprietor should be able to give fuller and more authentic particulars, we eventually succeeded in stemming the torrent of language. The thought just struck us as to

gates which give entry to the works, and here we found Mr. Phipps waiting and ready to pilot us on a tour of inspection. Our first halt was called in the saw-mill, where the timber is cut into requisite lengths by means of circular saws. We were only able to get a picture of one corner

TRADE SUPPLEMENT

of the shed, for the stacks of timber that almost filled the centre made photographing difficult. In the right-hand corner is the engine which generates the power for driving the saws, and further to the left is a saw in work. It is a marvellous sight to a novice to see the rapidity at which long lengths of boarding are cut, and even here, when one realises the large output from the various machines, one begins to get an idea as to how it is possible for the finished appliances to be

coops are made. This is a large shed, with benches fitted all round the walls, the centre being left for erecting; for it must be understood that although the houses are built in sections, the different parts are assembled when completed and fitted together for the finishing touches. The picture gives a good view of this shop. In the centre foreground is an open-fronted scratching-shed which has just been taken to pieces, and the final work of tighten-



THE MAIN WORKSHOP.

[Copyright.]

sold at such a reasonable figure. All of the lumber required for the various articles fashioned, whether incubators, foster-mothers, or houses, is cut in this shop, and is then distributed to the other sheds according to its use.

THE CARPENTERS' SHOP.

From the saw-mill we passed to the main carpenters' shop, where the houses, brooders, and

ing-up the screws is taking place. Just behind this is a cockerel house, and in the rear the men are seen making window-sashes and nest-boxes. The works are as up-to-date as new machinery can make them, and everything required is made in the various shops, with the exception of lamp burners, thermometers, and a few small articles used in the construction of the incubators and brooders.

WHERE THE TANKS ARE MADE.

After seeing all there was to be seen in the carpenters' shop, leaving it, loathfully, it must be owned, for it was a fascinating sight to see the dexterity and ease with which the many parts which go to make a house were fashioned, we crossed over the main yard and by means of a so-called staircase—really a hybrid between a ladder and a staircase—we reached the metal-working shop. It has always seemed to us that sheet copper or sheet zinc were ungiveable kinds of things, but we have changed our opinion concerning this. After seeing the way in which incubator or brooder tanks are made, when taken in hand by an expert, it now appears to be the easiest thing in the world to do. We lost count of the number of different parts which are made, and the number of small soldering furnaces on the benches, but taking into account the output of incubators alone we should imagine that this



INCUBATOR CONSTRUCTION.

[Copyright.]

ing, through a door on the right, and we found ourselves in the incubator shop. The metal parts are brought here, and together with the lengths of timber from the saw-mill the machines are constructed. When it is considered that the temperature of the egg-drawer has to be maintained at about 104deg. Fah., it stands to reason that only the best lumber can be used for the casing. In the case of the "Perfection" machines the best yellow pine is selected, and, moreover, the panels are made of hard wood. This gives a finished product of high utility quality—a high-grade looking machine. The polishing-room is just behind this shop, and a glimpse of it can be caught through the glass partition at the back. Unfortunately we were unable to obtain a view of this room, for the sun played too many tricks on the varnished exteriors.

ANOTHER IMPROVEMENT.

Although we do not usually describe the various appliances built at the works we visit, but content ourselves with a description of the workshops, &c., we must in this instance say something with reference to the new ideas carried out in the "Perfection" incubator. Mr. Phipps is a poultry-keeper as well as an appliance-maker, and in the course of his experience with artificial methods of hatching he has been overtaken by



THE METAL WORKERS.

[Copyright.]

must be one of the busiest parts of the whole works. The amount of care bestowed on each single tank is great, for the seams are so jointed and soldered that leakage becomes almost an impossibility even after years of use.

INCUBATORS.

Once more we negotiated the ladder staircase, a feat, by the way, more difficult than ascend-

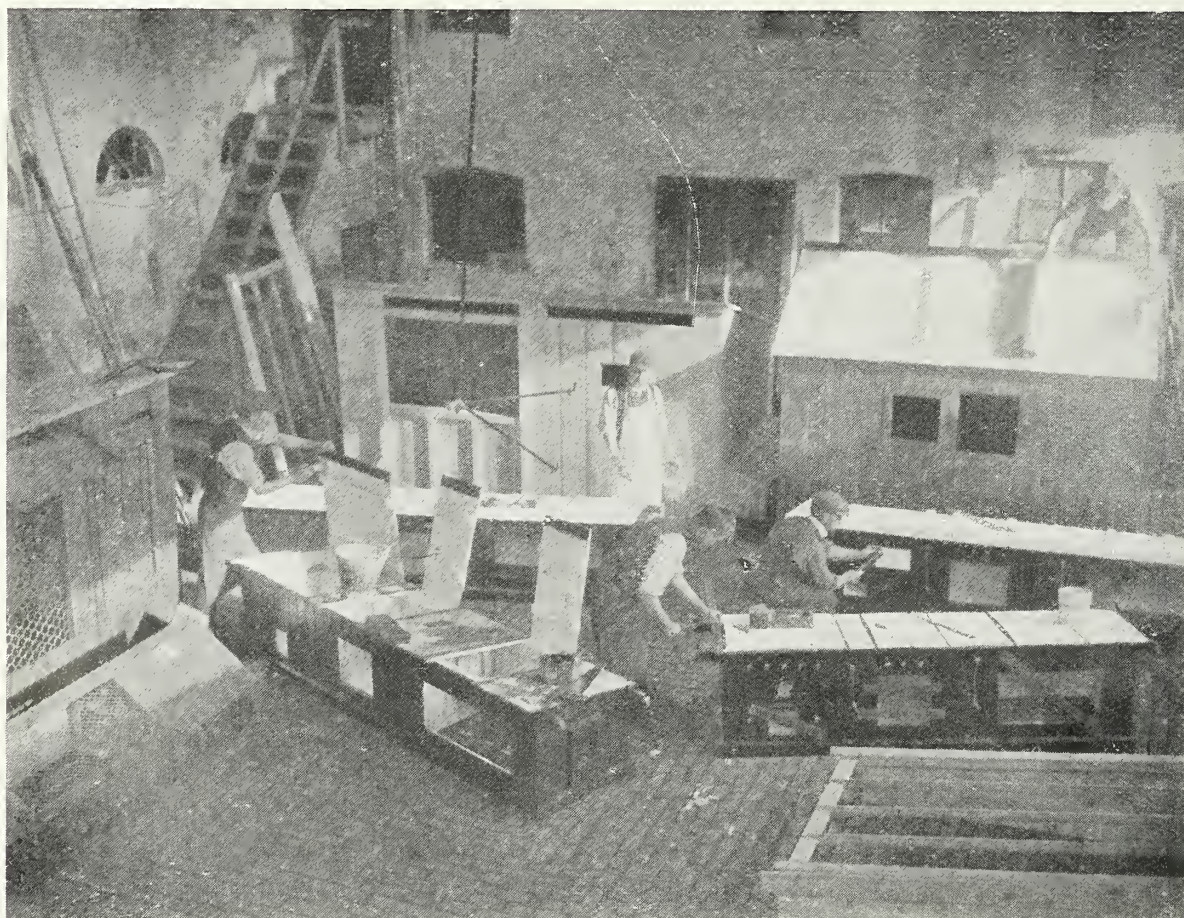
TRADE SUPPLEMENT

certain difficulties. These difficulties are the same as those of other poultry-keepers. The chief difficulty in incubating is the question as to how much water-vapour should be present in the atmosphere in the egg-drawer of a machine. To regulate this is not easy, for great judgment is required to discern when the embryo chickens are drying down too much or when there is too much chicken in the shell. Experience alone can teach this, especially when incubators are worked in excessively moist or particularly dry localities. As a means of regulating the humidity of the ingoing air, Mr. Phipps has designed his machine in a way somewhat out of the ordinary. The ingoing air passes between the two floors of the incubator by means of one entrance only, this being placed in the centre; it then passes by means of four openings, one at each corner, through a water-tray to a compartment the roof of which is made of canvas; further, by diffusion through the diaphragm it reaches the egg-chamber itself. A governing board closes or opens the central hole, according to requirements, whether a rapid current or a slow circulation of air is desirable. It is claimed that by

having four diffusers instead of one a more uniform humidity is maintained, each part of the egg-chamber being alike in this respect. One other innovation may be mentioned—namely, that a drying-box, or nursery, is arranged for below the egg-drawer, similar to that found in the majority of hot-air machines.

Our last halt was made in the yard itself, where the houses, brooders, &c., are painted or treated with some preservative and crated. At the time of our visit there were scratching-sheds, brooders, chicken coops, and runs, frames, rabbit hutches, &c., &c. We may mention the Midland Works are almost as well known for their other wooden buildings as they are for their poultry appliances, hence the variety of articles in the yard.

This brought our visit to an end. It was a visit full of interest and instruction, and one came away almost overlaid with detail as to construction which gives food for much thought. For ourselves, we know that whenever we see incubators, brooders, and houses again, we will look at them with seeing eyes, realising something of the infinite thought and work required to produce the finished goods.



FINISHERS AT WORK.

[Copyright.]

THE MARKETS & MARKETING

CONDUCTED BY    VERNY CARTER

Market Reports, Week Ending October 27.

Trade during the week in poultry was inclined to be unprofitable; prices remained very reasonable. Large quantities of pheasants arriving checked trade in poultry. The supply of eggs was very short, and there were very few English on the markets; values ruled very high for the period. Turkeys were rather more plentiful. Irish birds were of nice quality and met with fair demand, coming as a change.

Week Ending November 3.

Trade sluggish and unprofitable to producers, good for buyers of poultry. Game very plentiful and cheap. Turkeys increasing in quantities from Italy and Austria. Foreign and English eggs very scarce; values of English new-laid very high.

Week Ending November 10.

Markets remained much the same as last week, with the exception that English new-laid eggs seem to have disappeared altogether, in spite of values having reached 20s. to 21s.

Week Ending November 17.

Trade a little firmer with steady inquiry. Poultry remained very reasonable in price. Pheasants were cheaper. Irish and foreign turkeys increasing in quantities and meeting fair demand. English shorter than they have been for many years; prices running high.

THE TURKEY OUTLOOK FOR CHRISTMAS.

EXHAUSTIVE inquiries have failed to obtain any really authentic news as to the supplies of turkeys, either English or foreign, that will be available this coming Christmas. All salesmen have made the same answer—"Don't know, but, judging from reports to hand, they will be short; but, mind you, we do not know whether the reports are true or not." Continental shippers are very reticent about saying anything respecting available supplies. They generally commence operations by sending over a few about the middle of November, and ask a high price for the same; then, as Christmas approaches, larger quantities

arrive and down go the values. However, this was not the case last year, as Austrian birds realised very high values during Christmas week.

With regard to English turkeys, the salesmen were all unanimous in saying that they would be dear this season. Some retailers who have purchased their stock of birds for delivery during Christmas week had paid a penny to twopence per pound more this season than last. Judging from some 120 visits I paid to farmers in Norfolk during the first half of September, turkeys will be scarce. The average flocks were not only smaller than usual, but were very uneven, the first hatchings having been a partial failure. The prolongation of harvesting had also a detrimental effect on the birds, as they did not get on to the stubble till very late this year. This and the uncongenial weather retarded growth considerably; in fact, many birds appeared so backward then that it did not seem possible for them to be fit for market in time for Christmas. However, as stated above, it is very difficult indeed to forecast what will take place. During the third week of November considerable quantities of turkeys were coming to hand from Ireland, Italy, and Austria. Irish birds have been realising from 10d. to 1s. per pound, Italian and Austrian from 8d. to 10d.

As Christmas Day falls on a Saturday this year, it is important that birds intended for sale on the Central Markets should be there not later than Monday, the 20th. The previous Friday or Saturday would be preferable, as retailers like to get their Christmas show of birds ready as early as possible during Christmas week. If the weather is bright and crisp they would be inclined to buy a little earlier, therefore it would be better for producers to market their birds about the middle of the week before Christmas.

CAPERCAILZIE FROM NORWAY.

ONE of the best consignments seen for a long time of these birds were at Messrs. Kerry, Hull, and Junipers, of the Central Markets. They had been specially shot for them, and consigned direct without being frozen as usual. The birds were in fine condition, and afforded game-lovers an opportunity of tasting the "Lord" of the grouse at his best.

TABLE OF PRICES REALISED FOR HOME, COLONIAL, AND FOREIGN POULTRY, GAME, AND EGGS FOR THE FOUR WEEKS ENDED OCT. 20, 1909.

ENGLISH POULTRY—LONDON MARKETS.

DESCRIPTION.	PRICES REALISED DURING THE MONTH.			
	1st Week.	2nd Week.	3rd Week.	4th Week.
Surrey Chickens	2/3 to 4/6	2/3 to 4/6	2/3 to 4/6	2/3 to 4/6
Sussex "	2/3 " 4/6	2/3 " 4/6	2/3 " 4/6	2/3 " 4/6
Yorkshire "	2/0 " 4/0	2/0 " 3/6	2/0 " 3/6	2/0 " 3/6
Boston "	2/0 " 4/0	2/0 " 3/6	2/0 " 3/6	2/0 " 3/6
Essex "	2/0 " 4/0	1/9 " 3/6	2/0 " 3/6	2/0 " 3/6
Capons	—	—	—	—
Irish Chickens	1/6 " 2/6	1/6 " 2/6	1/6 " 2/6	1/6 " 2/6
Live Hens.....	1/3 " 2/3	1/4 " 2/6	1/3 " 2/4	1/0 " 2/0
Aylesbury Ducklings..	—	—	—	—
Ducks	2/9 " 4/0	2/6 " 4/0	2/0 " 4/0	2/6 " 4/0
Geese.....	5/6 " 7/6	5/0 " 7/6	5/0 " 7/6	5/0 " 7/0
English Turkeys.....	—	—	—	—
Irish Turkeys	5/0 " 8/6	9/-1/0p lb	9/-1/0p lb	9/-1/0p lb

ENGLISH GAME—LONDON MARKETS.

DESCRIPTION.	Each.	Each.	Each.	Each.
Grouse	3/9 to 4/0	3/0 to 3/6	3/0 to 3/6	3/0 to 3/6
Partridges.....	2/0 " 2/3	2/3 " 2/9	2/3 " 2/9	2/0 " 2/3
Pheasants.....	2/6 " 3/0	1/6 " 2/3	1/9 " 2/6	1/6 " 2/3
Black Game	2/6 " 3/6	2/6 " 3/6	2/6 " 3/6	2/6 " 3/6
Hares	1/9 " 3/3	1/9 " 3/3	1/9 " 3/3	1/6 " 3/3
Rabbits, Tame	1/0 " 2/0	1/0 " 2/0	1/0 " 2/0	1/0 " 2/0
" Wild	0/6 " 1/0	0/6 " 1/0	0/6 " 1/0	0/6 " 1/1
Pigeons, Tame	—	—	—	—
" Wild	0/8 " 0/9	0/8 " 0/9	0/8 " 0/9	0/6 " 0/8
Wild Duck	1/9 " 2/6	2/0 " 2/6	2/0 " 2/6	2/0 " 2/3
Woodcock	3/0 " 3/6	3/0 " 3/6	3/0 " 3/6	3/0 " 3/6
Snipe.....	—	—	—	0/9 " 1/3
Plover	0/5 " 0/6	0/5 " 0/7	0/5 " 0/7	0/5 " 0/6

ENGLISH EGGS.

MARKETS.	Per 120.	Per 120.	Per 120.	Per 120.
LONDON	14/0 to 16/8	16/0 to 18/0	17/0 to 20/0	17/0 to 21/0
Provinces.	Eggs per 1/-	Eggs per 1/-	Eggs per 1/-	Eggs per 1/-
MANCHESTER ...	5 to 8	5 to 8	5 to 8	5 to 7
BRISTOL	1/1 to 1/2	1/2 to 1/3	1/5 to 1/6	1/6 to 1/7
	per doz.	per doz.	per doz.	per doz.

FOREIGN POULTRY—LONDON MARKETS.

COUNTRIES OF ORIGIN.	PRICES REALISED DURING THE MONTH.				
	Chickens. Each.	Ducks. Each.	Ducklings. Each.	Geese. Per lb.	Turkeys. Per lb.
Russia	—	—	—	—	—
Belgium	—	—	—	—	—
France	—	—	—	—	—
United States of America	—	—	—	—	—
Austria	—	—	—	—	—
Canada	—	—	—	—	—
Australia	—	—	—	—	—

IMPORTS OF POULTRY AND GAME. MONTH ENDED OCT. 30, 1909.

FOREIGN GAME. LONDON MARKETS.	Price Each During Month.	COUNTRIES OF ORIGIN.		DECLARED VALUES.	
				Game.	Poultry.
Capercailzie	—	Russia	—	£1,075	£7
Black Game.....	1/1 to 1/2	Austria-Hungary	—	264	856
Ptarmigan	—	France	—	658	3,574
Partridges.....	0/9 " 1/4	United States of America	—	—	75
Quail	—	Other Countries	—	10,804	4,816
Bordeaux Pigeons	0/5 " 0/8	Totals	—	£12,801	£9,328
Hares	—				
Rabbits	—				
Snipe	—				

IRISH EGGS.

DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.
	Per 120.	Per 120.	Per 120.	Per 120.
Irish Eggs	11/0 to 12/0	11/6 to 13/0	12/6 to 14/0	13/0 to 15/0

FOREIGN EGGS.

DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.
	Per 120.	Per 120.	Per 120.	Per 120.
French ...	12/6 to 14/0	14/6 to 15/6	16/0 to 18/0	16/0 to 18/6
Danish ...	11/9 " 13/9	12/0 " 14/0	13/0 " 16/0	16/0 " 17/0
Italian ...	11/0 " 12/0	12/0 " 14/0	13/6 " 15/6	13/6 " 15/6
Austrian...	7/3 " 10/0	7/9 " 9/6	8/0 " 10/6	11/0 " 11/6
Russian ...	7/3 " 10/0	8/0 " 10/0	8/0 " 10/6	8/0 " 10/6
Australian.	—	—	—	—
Canadian..	—	—	—	—

IMPORTS OF EGGS. MONTH ENDED OCT. 30, 1909.

COUNTRIES OF ORIGIN.	Quantities in Gt. Hund.	Declared Values.
Russia	878,634	£334,225
Denmark	321,187	173,865
Germany	20,166	8,439
Italy	41,800	17,641
France	61,260	27,044
Canada	—	—
Austria-Hungary	62,091	24,747
Other Countries	102,665	44,297
Totals.....	1,487,803	£630,258

ANSWERS TO CORRESPONDENTS.

The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered if possible in the issue following their receipt. The desire is to help those who are in any difficulty regarding the management of their poultry, and accordingly no charge for answering such Queries is made. Unless stated otherwise, Queries are answered by

F. W. PARTON,

Lecturer in Aviculture, The University, Leeds.

Average Production, &c.

(1) What would be a good average number of eggs per hen from sixty hens (Barred Rocks and White Leghorns), or, rather, there are usually about half hens and half pullets—the former killed after second season? They are kept in a fairly big run, and the Leghorns run in a wood during part of the year. They have a shelter, and a manure heap to scratch over. The ground is fairly damp in winter. They get hot mash of Indian meal, thirds, and bread in the morning, and wheat or oats in afternoon. The house is a stone building.

(2) What is the best food for fattening cockerels kept in a closed run?—R. G. B.

(1) I should say that 120 eggs each per annum would be a fair average, but I do not suppose that sixty fowls would approach that estimate in the circumstances you describe, although with careful management and some improvement of the conditions the figures might be surpassed by selected birds. Dampness is always more or less inimical to health and a profitable productiveness, and in this particular your ground may be capable of some improvement by drainage or otherwise. The apparently constant use of maize-meal is not conducive to a laying condition, although in severe weather a small quantity of maize may be beneficially fed in addition to the oats or wheat; but make oats the staple grain. For a warm morning mash a mixture of bran and middlings with some meat would be preferable to the present mixture. (2) If you can get any finely ground oats, mix the meal with milk and add some fat (butchers' pieces boiled down to separate the skin and refuse), which will make the best fattening food for the cockerels. Feed this twice daily in troughs and let them eat all they will for about ten days, or a fortnight if they continue to improve in condition for the longer period.—J. W. H.

Trussing for Market.

Will the "Production" Editor kindly give particulars as to the meaning of the term trussing for market in the Devonshire manner?—H. M. S. (Luton.)

To tie a fowl you require three pieces of string, one a little longer than the other two; and the string must not be too fine or it will cut into the skin. The longer piece is used to tie round the hocks, drawing these joints fairly close together, crossing the string over the vent and fastening it securely round the tail or "parson's nose." The two short pieces are tied one each round the middle toe of each foot, bringing the legs forward and drawn inwards so that the two pieces of string may be tied tightly behind the neck; the wings being tucked in may be included in the tying that passes from the toes to the back of the neck at the top of the bird's back.—J. W. H.

The Fertilising Power of Males.

Will you kindly tell me whether the influence of the male will be sufficient for several eggs or only one?—C. C. C. (T. Jour d'El-Rey, Brazil.)

It is usually found that after the cock has been taken away from the females the eggs are fertile for from four days to a week, but if these eggs are incubated it is remarked that the germs become weaker and weaker. We have always found that the period through which the eggs remain fertile depends on the vigour of the male.

Short Replies.

E. H. (Bolton): We have no information on that subject.

N. W. (Maidenhead): No.

M. J. H. (Southgate): 1. No. 2. No. 3. No. 4. Yes.

J. T. (Southampton): Three weeks, or for show birds four weeks.

L. W. (Slough): Refer to our issue of May, 1909. Page 492.

L. Q. (Fintona): 1. 21s. the quarter. 2. 15 per cent. 3. Very seldom.

M. B. (Newbury): Any of the leading makes are reliable. Refer to our advertising columns.

J. G. (Blackburn): If you will cool your eggs for at least twice as long we think the result will be better.

F. P. (Dundee): Try rubbing the wound with flowers of sulphur, keeping the bird in a coop under cover.

L. C. (Newburyport, Mass., U.S.A.): 1. Such birds can be purchased on this side from 10s. each and upwards. 2. On the number of birds suggested the freight should not cost more than 5s. each.

MR. MEECH IN TROUBLE.

EARLY last month a somewhat serious fire broke out at the West of England Appliance Works, Poole, Dorset, and did between four or five thousand pounds' worth of damage. The loss might have been very much greater had it not been for a band of amateur firemen who came to Mr. Meech's rescue, for the fire destroyed the telephone wires and rendered it impossible to communicate promptly with the brigade. Fortunately, the factory, warehouse, and the store and timber houses were saved, and thanks to the sympathetic offers of machinery from various firms, only a few days elapsed before business was resumed with a temporary plant. Mr. Meech, with his usual promptitude, issued a circular to his clients, guaranteeing to deal with all orders in two weeks, and we have no doubt that by the time this issue is published he will have made his word good.

CLUBS AND SOCIETIES.

THE UTILITY POULTRY CLUB'S FOUR MONTHS' LAYING COMPETITION.

THE reports upon the laying during the first month of the two Competitions have come to hand from the respective managers. Mr. R. G. Baker, Slade Poultry Farm, Ilkley, Yorkshire, is managing the Competition in the North; and Mr. J. N. Leigh, Baron's Grange, Iden, Rye, that in the South. Thirty pens are taking part in each Competition, and trap-nests are used throughout.

FROM THE MANAGER'S REPORT ON NORTHERN COMPETITION FOR MONTH ENDING NOVEMBER 4, 1909.

The birds sent here for this Competition were on arrival very carefully examined, and isolated for a period of not less than 48 hours prior to being placed in the pens allotted to them. In four instances, the methods of packing adopted by consignors can only be spoken of as absolute cruelty, and no language can be too strong in which to condemn such action on the part of owners of birds who are, or ought to be, more or less closely acquainted with up-to-date methods of poultry packing; such cruelty must have had a very injurious effect on the birds. Within two days of arrival eggs were laid by Pens 17 (one egg) and 2 (two eggs), but all were small, barely scaling 1½ oz. each. The change of environment, &c., will no doubt account for the fact that the first four weeks have passed without one egg being laid. The average temperature for the four weeks has been 44deg. Fah. at mid-day, and 37deg. Fah. at 10 p.m. Severe easterly and westerly winds have been blowing practically all the time (23 days out of 28); there has been much rain and mist, and also several very severe frosts. The health of all the birds has been excellent, although nine (all White Wyandottes, affecting five pens) are moulting.

OBSERVATIONS :

Pens Nos. 1 and 2, Light Sussex; No. 3, Buff Orpingtons; Nos. 4, 8, 9, 12, 17, 18, and 19, White Wyandottes; Nos. 20 to 25, Buff Orpingtons; No. 27, Buff Rocks; and No. 28, Plymouth Rocks—well forward, should lay soon; No. 5, White Wyandottes—backward on arrival, coming on well; No. 6, ditto—one moulting, three well forward; No. 7, ditto—very backward, well matured; No. 10, ditto—one moulting, three very backward; No. 11, ditto—rather backward; No. 13, ditto—three backward, one well forward; No. 14, ditto—two moulting, two very backward; No. 15, ditto—three moulting, one very backward; No. 16, ditto—two moulting, two very backward; No. 26, Buff Rocks—very small and backward; No. 29, White Leghorns—immature on arrival, very backward; No. 30, Brown Leghorns—immature on arrival, very backward.

(Signed) REG. G. BAKER,
Manager.

FROM THE MANAGER'S REPORT ON SOUTHERN COMPETITION FOR MONTH ENDING NOVEMBER 4, 1909.

The outstanding feature of the first four weeks' run of the Competition in this section has been the very large number of birds moulting. Almost all the very forward ones have fallen victims, and more especially the Wyandottes, of which very few have escaped. The egg yield has suffered in consequence, and will continue to do so for some time to come. The highest pen record in the

28 days is 54 by a pen of Buff Orpingtons, and the best individual score is 26 by a White Wyandotte pullet. No less than 10 pens have failed to make a start, due in some cases to moulting, and in others to immaturity. Two pullets have been broody. One bird died from liver and kidney trouble, otherwise the general health may be considered satisfactory, all the birds suffering from colds on arrival having recovered. The weather on the whole has not been favourable for the Competition.

(Signed) J. N. LEIGH.

THE UTILITY POULTRY CLUB COMMITTEE.

A MEETING of the Committee of the Utility Poultry Club was held recently, and there were present Mr. P. Percival (in the chair), Messrs. B. W. Horne, W. M. Macbeth, G. A. Palmer, W. Reynolds, C. E. J. Walkey, and L. W. H. Lamaison.

Several new members were elected.

The following resolution received from the Poultry Club was considered :

That in order to give effect to the recommendations of the Yorkshire Branch, the Hon. Secretary be instructed to write to the Utility Poultry Club and the National Poultry Organisation Society, asking them if they will co-operate with the Poultry Club by forming a Joint Committee to see what steps can be taken to remedy injury the poultry industry suffers annually in this country by the preservation of foxes for sporting purposes.

Mr. B. W. Horne put forward the following resolution :

The Committee of the Utility Poultry Club have considered the application of the Poultry Club asking the Club to co-operate with them by forming a Joint Committee to see what steps can be taken to remedy the injury the poultry industry suffers annually in this country by the preservation of foxes for sporting purposes, and are of opinion that, having regard to the great desirability of approaching this question impartially, the better course would be to appoint a conference to consider what effect fox-hunting has on the keeping of poultry for utility purposes, and if found detrimental to further consider the best means of protecting the industry, and the Committee are prepared to co-operate in any conference promoted on these lines. And further the Committee would point out that the Club is founded in the interests of utility poultry-keepers, and not of fanciers, and that the aspect of the question for the point of view of the two sections differs considerably,

and a lengthy discussion took place.

Mr. Reynolds proposed as an amendment :

That the invitation of the Poultry Club be accepted.

But no one seconding the amendment, Mr. Macbeth proposed Mr. Horne's resolution, Mr. Wakley seconded, and the resolution was carried.

A proposal of Mr. Horne's to start a register of members desiring to sell eggs and poultry for the table, with a registration fee of 2s. 6d., was agreed to; also a proposal to start a partnership register.

STREET AND DISTRICT COLLECTING DEPOT.

SIX MONTHS' LAYING COMPETITION, 1909-10.

MR. W. REYNOLDS'S Report for October states that during this month wet, wind, and cold delayed many of the birds in the Competition, with the result that both the average production and the highest scores were below those of the corresponding month of last year. Four pens showed nothing; two being too young and the others too forward, while seventeen pens were interfered with by broodiness. The general health, however, has been good. One pullet died of apoplexy, and was replaced. During the month 1,814 eggs were laid, giving an average per bird of 7.03, as against 8.61 last year. The leading pen was one of 25 White Leghorns, which produced 94 eggs of a total weight of 9lb. 12½oz., value 9s. 1¼d.; and the second was composed of 16 Buff Orpingtons, producing 76 eggs, weighing 9lb. 4¼oz., valued at 8s. 10¼d.

NORTHERN UTILITY POULTRY SOCIETY LAYING COMPETITION, 1909-10.

MR. GEO. SKIPPER, the manager, writes: I have pleasure in placing before you the results of the first four weeks. The birds delivered to my charge, taken on the whole, are a fairly good lot, in spite of the fact that several immature birds were sent. It appears that there is still much to be learnt in selecting birds to take part in a laying test. All pens are spoilt by having one or two birds not nearly ready to lay, and in no pen have all four birds been contributing to the egg-basket at one time. That there are some birds that can lay well will be plainly seen when I say that Nos. 13 and 16 have laid between them 47 eggs, No. 16 laying 26, and No. 13 laying 21. No. 49 has also laid 26 eggs during the month. No. 13 was returned at first as grossly immature, and the bird referred to above is the one sent in its place. Several birds were suffering from colds on arrival. Nos. 54 and 88 were isolated and treated, but, failing to respond to treatment, were replaced, having taken no part in the Competition. No. 60 died from liver trouble during the month, and has been replaced. All the birds are now in good health, and the backward ones are coming along very nicely and are promising well for the future. Nos. 35 and 93 are moulting without having laid in the Competition. Three entries, consisting of twelve birds, are penned together with good grass runs and scratching-sheds; oyster shell and flint grit are always at their disposal. No patent foods of any description are fed. No. 21 has laid two eggs in fourteen hours; No. 20, two double-yolked eggs; Nos. 64, 7, and 38, one. Six shell-less eggs have been laid, which are not counted. Pens 20 and 22 have not laid. Nos. 73, 74, 25, 90, and 92 have been broody. The weather throughout the month has been all against poultry.

WHITE WYANDOTTE CLUB.

RESULTS of election 1909-10: F. J. Broomhead, scrutineer; 190 voting papers sent out, 90 returned, of which six were unsigned.

President.—G. H. Richards, 37 votes, elected; R. Anthony, 24 votes; H. Peel, 22.

Vice-Presidents.—(2). H. Peel 39 votes, and R. Anthony 30, elected; G. H. Richards 33 votes, W. J. Harrington 25, W. Heyden 18, and W. Moore 13 votes.

Committee (8).—W. M. Elkington 75 votes, W. J. Harrington and W. Moore 60, Miss N. Edwards 54, W. Heyden 57, W. P. Hollis 32, A. C. G. Roberts 27, W. Whitley 24, elected; H. Peel 60, G. H. Richards 53, R. Anthony 43, C. D. Milne 32, G. L. Ward 15, W. E. Topham 16, C. A. Perfect 15, and S. C. Court 11 votes, not elected.

Club Judges.—G. N. Goode 75, J. S. Hicke 71, W. M. Elkington 61, G. H. Richards 56, R. Anthony 53, J. Wharton 46, W. Moore 41, W. J. Harrington 40, W. Hayden 36, H. Peel 33, A. C. G. Roberts, 24, J. A. Cowe 19 votes, elected; Captain Darby 13, and G. L. Ward 13, not elected.

Hon. Secretary and Treasurer.—J. S. Hicks, returned, unopposed.

Club Show, Cambridge, December 8 and 9. Schedules now ready. Open to members and hon. members. Apply W. Driver, 17, Sussex Street, Cambridge.

RAILWAY ANNOUNCEMENTS.

The Great Northern Railway.

This company's new time tables have been issued, and several important improvements in the train service are embodied in them. The East Coast sleeping-car express for Scotland, which has hitherto left King's Cross at 8.15 p.m., will start at 8 p.m., and will arrive correspondingly earlier. The 2 p.m. King's Cross to Manchester train will leave at 1.40 p.m., and run to the London Road instead of the Central Station; while the 6.5 p.m. through dining-car express will also be run to the London Road Station at Manchester, where it arrives at 10.8 p.m., a good acceleration, the entire journey occupying only four hours three minutes. Although the Great Northern Railway is already the quickest between London and Leeds, Bradford, Halifax, Huddersfield, Batley, and Dewsbury, further accelerations have been made between those towns.

London and North-Western Railway.

The London and North-Western is catering very largely for those Londoners who desire to get into the country occasionally, for not only has it special cheap tickets to cover the week-end, either from Friday or Saturday to return Sunday, Monday, or Tuesday, but it is running extra day trips on Mondays and half-day every Thursday and Saturday to Aylesbury, and every Saturday for half-day to other beauty spots on its line which are within easy reach of London.

Euston Station now being in direct communication with Tube Railways, all parts of London are brought within touch.

Great Central Railway.

Those of our readers who live on the Great Central line, and who intend visiting the Smithfield Cattle Show, December 6 to 10, should refer to the special day and half-day excursions which that company has arranged. The London terminus, Marylebone, is within easy distance of the Royal Agricultural Hall by omnibuses, which pass the station every few minutes. Another excursion of a similar nature is for the National Chrysanthemum Show, December 1 and 2.

Great Eastern Railway.

We notice that the Great Eastern Railway is continuing its summer arrangements as regards week-end

tickets. These are issued every Saturday, between any two of the Company's stations, with but a few exceptions, at a single fare and a quarter. Arrangements have also been made for similar bookings from Great Eastern stations to those on a large number of other lines, including Cheshire lines, Colne Valley, Great Central, Great Northern, Hull and Barnsley, Midland, and North-Eastern Railways.

Great Western Railway.

In addition to the arrangements made for issuing cheap week-end and half-day excursion tickets from London (Paddington) to stations on the Great Western system, the company has organised a number of excursions from the provinces to London during December, exclusive of the special Christmas excursions. These vary in length from half a day to eight days, and include practically all stations on the company's line.

PROPERTY BUREAU.

During the past twelve months we have received frequent inquiries from our readers, asking whether we can help them in finding suitable places on which to commence poultry-keeping. We realise the great difficulty experienced by those desirous of buying or renting suitable properties, and to overcome this we have got into touch with a number of Estate Agents in various parts of the country. As a result, we propose month by month to publish a list of those properties which appear to be suitable as regards house, acreage, locality, and price. We are also willing to insert readers' "wants" free of charge. All communications should be addressed to:

THE EDITOR,

ILLUSTRATED POULTRY RECORD.

15, Essex Street, Strand, London, W.C.

IN THE COUNTY OF BERKSHIRE.

A delightfully-placed FREEHOLD RESIDENCE, three and a half miles from a large town, with stabling, two four-roomed entrance lodges, small farmery, four-roomed cottage, cattle yard, cart shed, piggeries, &c., productive garden, with greenhouse, and meadow land, in all about 19 acres. The residence contains eight bedrooms, two dressing-rooms, three reception-rooms, and usual offices. Large kitchen and flower gardens and meadow land, in all 5 acres. Stabling, coach house, and other out-buildings. RENT, £160 per annum. PRICE, FREEHOLD, £4,000.—Box 1, at the Office of the ILLUSTRATED POULTRY RECORD.

An attractive DETACHED RESIDENCE, situate on high ground, about three miles from station of Great Western Railway main line and eight miles from large town. House contains four good bedrooms, bathroom, three good reception-rooms, and usual offices. Large kitchen and flower gardens and meadow land, in all 5 acres. Stabling, coach house, and other out-buildings. RENT, £35 per annum.—Box 1, at the Office of the ILLUSTRATED POULTRY RECORD.

An attractive DETACHED HOUSE, situate on very high ground, about two miles from station on the London and South-Western Railway. House, four good bedrooms, bathroom, two reception-rooms, and usual offices. Large vegetable garden and paddock of 3 acres. RENT, £35 per annum. PRICE, £700 FREEHOLD.—Box 1, at the Office of the ILLUSTRATED POULTRY RECORD.

FOR SALE, LEASE of old-fashioned RESIDENCE, containing three large reception-rooms, six bedrooms, storeroom, bathroom, with large walled garden, cottage, stables, out-buildings, with nearly 7 acres of land. Near a station, within an hour of London.—Box 3, at the Office of the ILLUSTRATED POULTRY RECORD.

IN THE COUNTY OF NORFOLK.

One mile from a station on the Midland and Great Northern Railway, five minutes' walk from village, with church, shops and post-office, eight miles from Sandringham and thirteen from King's Lynn. A very DESIRABLE PROPERTY of 5½ acres, with a good house, comprising six bedrooms and three reception-rooms, good kitchens and offices. Good garden with lawn, well stocked with fruit-trees, orchard and paddock, and also about 3½ acres of arable land. Two-stall stable, barn, cow-house, stack-yard. Excellent supply of good water from a well. Valuable common rights also go with the property. Very healthy locality. Tithe and rates about £6 per annum. FREEHOLD, £950. RENT, £45 per annum.—Box 2, at the Office of the ILLUSTRATED POULTRY RECORD.

Well situated DETACHED PROPERTY about half a mile from the town, with station, shops, post office, &c.; five miles from North Walsham and eighteen from Norwich. The house contains six bedrooms, bathroom, three reception-rooms, and good domestic offices. The out-buildings comprise stabling, coach-house, harness, workshop, tool-house, &c. There are grounds of about 3½ acres, with good kitchen garden and tennis lawn. Golf links adjoin the property. Excellent supply of water. RENT, £60 per annum, or offer might be accepted. FREEHOLD, £1,230.—Box 2, at the Office of the ILLUSTRATED POULTRY RECORD.

DOUBLE COTTAGE, with about four bedrooms, two reception-rooms, and offices. Good garden and 3 acres land. Four miles from station. Seven miles from Fakenham and twenty-five miles from Norwich. FREEHOLD, £340 or offer.—Box 2, at the Office of the ILLUSTRATED POULTRY RECORD.

Excellent COUNTRY PROPERTY, with house, containing nine bedrooms and dressing-rooms, four reception-rooms, and excellent offices. Paved yard at rear, with good outhouses. The whole standing in good grounds of about 45 acres, comprising Park, 20 acres; arable, 10 acres; and remainder pasture and plantations. Good water and drainage. Light soil. Also good double cottage and half-acre of garden. FREEHOLD, £4,000.—Box 2, at the Office of the ILLUSTRATED POULTRY RECORD.

PROPERTIES WANTED.

IN THE COUNTIES OF DEVON OR CORNWALL.

HOUSE REQUIRED, containing about three bedrooms, two reception-rooms, stabling and out-buildings, together with 20 to 30 acres of pasture land. Not more than three miles from station, and within driving distance of a town.—Send particulars to Box A, at the Office of this Paper.

IN THE COUNTY OF BUCKINGHAM.

HOUSE REQUIRED, containing about four bedrooms, three reception-rooms, bathroom, and usual offices, with 10 to 20 acres of meadow land. Within driving distance of station and motoring distance of London.—Send particulars to Box B, at the Office of this Paper.